

**LONG-RANGE SURVEILLANCE UNIT
APPLICATION IN JOINT VISION 2010**

A thesis presented to the Faculty of the U.S. Army
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fulfillment of the requirements for the
degree

**MASTER OF MILITARY ART AND SCIENCE
General Studies**

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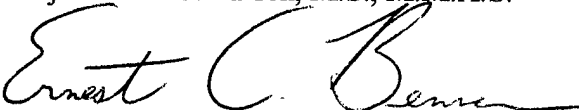
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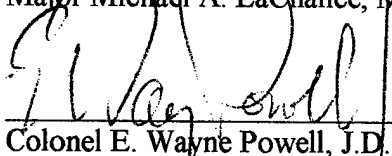
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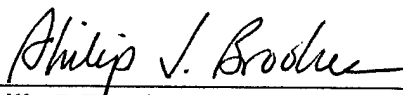
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ABSTRACT

LONG-RANGE SURVEILLANCE UNIT APPLICATION IN JOINT VISION 2010, by MAJ David P. Anders, USA, 104 pages.

This study investigates the ability of the current force structure and organization of long-range surveillance units to accomplish the reconnaissance requirements expressed in the emerging operational concepts of Joint Vision 2010. The study analyzes the role of long-range surveillance operations in the Army's past and present doctrine. Additionally, the study analyzes what the future intelligence collection requirements are in accordance with Joint Vision 2010 and what role long-range surveillance units are capable of playing in the accomplishment of those requirements. Using both quantitative and qualitative analysis, the study makes a set of inferences and generalizations about the current state of long-range surveillance operations and future application. The study concludes with the observation that though long-range surveillance units are required in accordance with our most current doctrine, the current organization and force structure does not support the future reconnaissance requirements expressed in the emerging operational concepts of Joint Vision 2010. The study recommends a reformation of the current organization and force structure to two, multicomponent reconnaissance battalions assigned to the military intelligence brigade of the two contingency corps. Each battalion would be capable of providing modular, tailorable, force projection reconnaissance task forces within their respective corps area of operation. Each reconnaissance task force will be designed, organized, and trained to accomplish the intelligence collection requirements of the future battlefield.

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ABBREVIATIONS

| | |
|--------|--|
| AC | Active Component |
| ALB | AirLand Battle |
| AAN | Army After Next |
| AOE | Army of Excellence |
| ARNG | Army Reserve National Guard |
| BRS | Base Radio Station |
| BDA | Battle Damage Assessment |
| CEWI | Combat Electronic Warfare Intelligence |
| CSAR | Combat Search and Rescue |
| CONUS | Continental United States |
| CRB | Corps Reconnaissance Battalion |
| D3A | Decide, Detect, Deliver and Assess |
| DTLOMS | Doctrine, Training, Leadership, Organization, Material, and Soldiers |
| FM | Field Manual |
| FEBA | Forward Edge of Battle Area |
| FLOT | Front Line of Troops |
| HALO | High Altitude Low Opening |
| HF | High Frequency |
| HPT | High Payoff Target |
| HUMINT | Human Intelligence |
| IMINT | Imagery Intelligence |
| IO | Information Operations |

| | |
|----------------|---|
| JTF | Joint Task Force |
| JRTC | Joint Readiness Training Center |
| JV 2010 | Joint Vision 2010 |
| LRRP | Long-Range Reconnaissance Patrol |
| LRS | Long-Range Surveillance |
| LRSC | Long-Range Surveillance Company |
| LRSD | Long-Range Surveillance Detachment |
| LRSU | Long-Range Surveillance Unit |
| MTW | Major Theater War |
| MOU | Memorandum Of Understanding |
| MI | Military Intelligence |
| MOUT | Military Operations in Urban Terrain |
| MOOTW | Military Operations Other Than War |
| METL | Mission Essential Task List |
| NAI | Named Area of Interest |
| NEO | Noncombatant Evacuation Operation |
| NCO | Noncommissioned Officer |
| OC | Observer Controller |
| OPTEMPO | Operational Tempo |
| RD | Reconnaissance Detachment |
| RSC | Reconnaissance Support Company |
| RTF | Reconnaissance Task Force |
| SATCOM | Satellite Communications |

| | |
|--------|---|
| SIGINT | Signal Intelligence |
| SAW | Squad Automatic Weapon |
| SME | Subject Matter Expert |
| SASO | Support And Stability Operations |
| TO&E | Table of Organization and Equipment |
| TTP | Tactics, Techniques, and Procedures |
| TA | Target Acquisition |
| TEB | Tactical Exploitation Battalion |
| TAI | Target Area of Interest |
| TAA | Total Army Analysis |
| TRADOC | Training and Doctrine Command |
| USAIS | United States Army Infantry School |
| USAICS | United States Army Intelligence Center and School |
| UAV | Unmanned Aerial Vehicle |

CHAPTER ONE

INTRODUCTION

Now an army may be likened to water, for just as flowing water avoids the heights and hastens to the lowlands, so an army avoids strength and strikes weakness. And as water shapes its flow in accordance with the ground, so an army manages its victory in accordance with the situation of the enemy. And as water has no constant form, there are in war no constant conditions. Thus, one able to gain the victory by modifying his tactics in accordance with the enemy situation may be said to be divine (Sun Tzu, 400 B.C., 101).

Nothing helps a fighting force more than correct information. Moreover it should be in perfect order, and done well by capable personnel (Guevara 1961, 107).

Background

Combat forces need accurate and timely intelligence about enemy forces, terrain, and weather. Commanders must make fast and accurate decisions to have the right combat force at the right place and time. Their decisions are partly based on information gathered for intelligence purposes. Long-range surveillance (LRS) units are trained and equipped to gather this information (FM 7-93 1995, 1-1).

Human intelligence (HUMINT) is a category of intelligence derived from information collected and provided by human sources. HUMINT has always been a primary source of information within the intelligence collection system. Frontline soldiers and reconnaissance patrols have historically provided combat information to tactical commanders. Commanders at all levels need this type of information. LRS teams are a primary source of HUMINT (FM 7-93 1995, 1-1).

LRS units are unique organizations whose missions fill the void along the seam between conventional and special operations.

The closest linkage to today's LRS soldier can be found in World War II in the Pacific Theater of operations. These outstanding soldiers were known as the Alamo Scouts. Although today's LRS units do not trace their lineage and heraldry directly to the Sixth Army Alamo Scouts, they have a kindred spirit with these World War II soldiers, as the focus of both units were and are, primarily on the collection of combat intelligence (O'Dawe 1990, 6). The Sixth Army Alamo Scouts were the eyes and ears of the Army commander Lieutenant General Walter Krueger. General Krueger, a Texan from San Antonio, selected the name for this special organization from the nickname of his Headquarters--the Alamo Force (Krueger 1953, 29).

Early in the island-hopping campaign from New Guinea northward, Lieutenant General Krueger had noticed the results of a secret U.S. Navy team, sometimes called the Amphibious Scouts, formed by Commander William Coultas. The type of men selected, their training, and their success in penetrating enemy territory and obtaining invaluable intelligence impressed Krueger. The General was so impressed that he determined he would have just such a small, elite group. He sent out requests for volunteers with qualities of courage, physical ruggedness, excellent health, sound swimming skills, intelligence, and expert marksmanship. These volunteers had to complete a rugged six-week course. The net result was a secret ballot process to select the six best men and one officer out of those who completed the course. This new team then became the nucleus for the Alamo Scouts (Taylor 1985, 132-133). From this nucleus, the selection course

continued under the supervision of Colonel Fredrick Bradshaw, an Intelligence Officer at Sixth Army Headquarters. Specially selected graduates were designated Alamo Scouts while the remainder of the graduates were returned to their home units to perform similar reconnaissance functions for their commanders. Colonel Bradshaw personally selected each soldier that attended the training, eventually graduating ten classes averaging thirty soldiers each. Of these graduates, ten Alamo Scout teams were formed consisting of one officer and five to six enlisted men (Krueger 1953, 30).

From 1943 to 1945 the Alamo Scouts performed diverse missions for the Sixth Army consisting primarily of static surveillance, reconnaissance, and limited combat operations. They worked directly for Colonel White, the Sixth Army Intelligence Officer, who had overall responsibility for not only their training, but also their employment. Virtually every major operation of the Sixth Army during the period was preceded by Alamo Scout surveillance or deep reconnaissance on enemy units and installations (O'Dawe 1990, 7). The Alamo Scouts were the reconnaissance element for the highly successful hostage rescue operations by the 6th Ranger Battalion, which rescued 512 survivors from the Bataan Death March at the Japanese prisoner of war Camp at Cabanatuan. Additionally, they successfully conducted a second POW rescue operation by themselves (Krueger 1953, 237-239). The true tribute to the Alamo Scouts is that although they were involved in over eighty missions in an extremely high threat environment, not one Alamo Scout was killed or captured (Wells 1989, 32). Although the Alamo Scouts performed a wide variety of operations, ranging from static surveillance to deep active reconnaissance and some direct actions, their primary focus remained on the

collection of intelligence and therefore was more in keeping with the mission of today's LRS soldier (Wells 1989, 28).

While the Alamo Scouts more closely engaged in missions more associated with today's LRS units, they are more closely linked in terms of team size and deep penetration operations to the Long-Range Reconnaissance Patrol (LRRP) companies and detachments during the Vietnam War.

Deep penetration operations continued to grow and mature during the Vietnam War. The term LRRP was coined during the Korean War, but became popular during Vietnam where it initially reflected the type of missions given the units. Special Forces first developed the LRRP concept in 1964 with the creation of highly classified units known as Detachment B-52, B-50, and B-56. These specialized units conducted operations throughout Vietnam and also cross-border operations into Cambodia. These highly capable reconnaissance units were absorbed into MACV-SOG (Military Assistance Command Vietnam Studies and Observation Group) in November 1967 (O'Dawe 1990, 8). In addition to the U.S. Special Force's LRRP teams, both regular U.S. Army units and Australia's Special Air Service (SAS) deployed LRRPs throughout their areas of responsibility. Later in the war, all U.S. infantry divisions and separate infantry brigades were given a LRRP capability (Summers 1985, 231-232). Eventually, the majority of commanders in Vietnam misused their LRRP units and was often given direct action missions as opposed to conducting reconnaissance and intelligence operations (O'Dawe 1990, 9). By 1967 all LRRP units were reorganized under the 75th Infantry (Ranger) Regiment, inactivating all LRRP units in Vietnam. However, this reorganization was

merely a paper drill with no impact on the consolidation or improvement of training, tactics, or operations (England 1987, 6). Through the end of the Vietnam War the primary mission of these Ranger Long-Range Patrol (LRP) Companies was primarily direct action missions. While extremely successful in the vast majority of their missions, exacting a heavy toll on the enemy, the price was high in the commitment of resources and friendly casualties. This price, coupled with the basic American fascination with gadgets and a traditional military prejudice associated with elite units within the military, led to the inactivation of the Ranger LRP Companies. The demise of the LRRP concept and inactivation of all LRRP-type units in 1974 created a gap in the corps and division commander's ability to collect HUMINT combat information on the enemy. This gap remained for the next twelve years (O'Dawe 1990, 10).

In the aftermath of the LRRP there was no organic HUMINT asset available to the corps or division commander. A great reliance was placed on technology to answer the need for timely and accurate intelligence. Unfortunately, technology does not satisfy a tactical commander's entire requirement for combat information. Rain, snow, fog, or radio interference can defeat the most sophisticated of ground based or overhead surveillance systems (O'Dawe 1990, 10).

Beginning in 1977, then TRADOC commander, General Donn Starry was deeply concerned about Warsaw Pact echelon tactics and the enormous disparity in numbers. If something was not done about them, and if war broke out, sooner or later the sheer weight of numbers would prevail. In the end, he knew the Army's current doctrine, the Active Defense, came down to attrition warfare, and in attrition warfare, numbers do

count. General Starry's idea was to reintroduce a battle in depth: extend the battlefield deep on the enemy's side of the forward line of contact, to attack follow-on echelons, and to break up the enemy's momentum and disrupt his ability to bring his mass to bear in the close fight. To do all this required intelligence and deep targeting (Clancy 1997, 109). From this concept came the development of AirLand Battle doctrine, which was introduced in 1982. The reorganization of the Army to fight that doctrine came to be known as the Army of Excellence (AOE). It is under this organization that Army forces currently fight.

The Problem

In 1986 the Army responded to concerns in the field about the lack of organic HUMINT collection by activating Long-Range Surveillance Companies (LRSC) at corps and Long-Range Surveillance Detachments (LRSD) at division level. Each company or detachment would operate within their own area of operation on the linear battlefield and report directly to their corps or division Intelligence Officer (G2). The distances LRS units operate forward of the forward edge of the battle area (FEBA) and forward line of own troops (FLOT) vary depending on terrain, operational tempo of the battlefield, and intelligence needs of the commander (see figure 1) (FM 7-93 1995, 2-9).

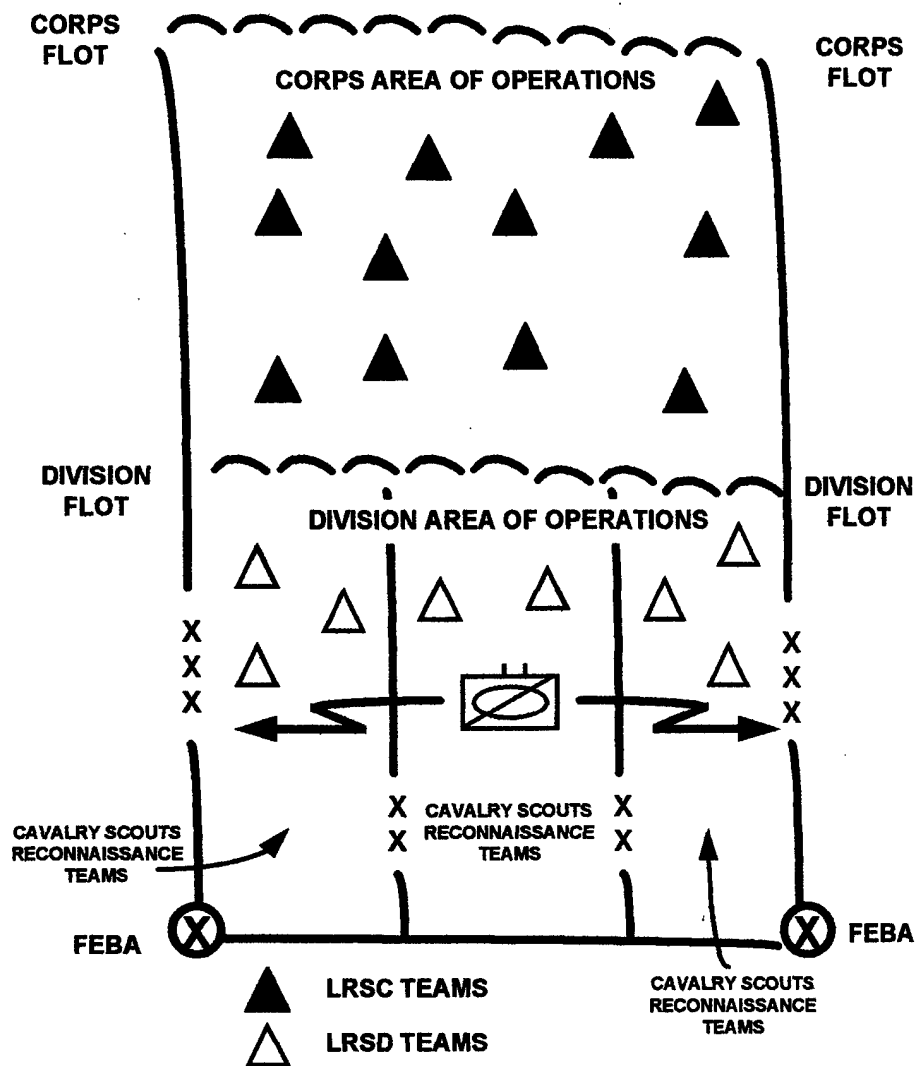


Figure 1. Areas of Operation (Source: FM 7-93 1995, 2-10)

The primary role of these LRS units is to deploy teams between the echelons of the enemy and to report the vital combat information on the enemy to their respective corps and division commander. LRSD teams operate forward of battalion reconnaissance teams and cavalry scouts in the division area of interest. The LRSC teams operate forward of

the LRSD teams and behind most Special Operation Forces (SOF). Figure 2 depicts the operational strata of forward reconnaissance.

| LEVEL | ELEMENT | LOCATION |
|------------------------------|---|--|
| STRATEGIC LEVEL | | |
| Special Reconnaissance | Special Forces | THEATER |
| Combat Operations | Ranger/ Special Forces | |
| OPERATIONAL LEVEL | | |
| Surveillance | LRSC | CORPS |
| Reconnaissance | LRSC | |
| Combat Operations | Ranger/ Corps Troops | |
| TACTICAL LEVEL | | |
| Surveillance | LRSD | DIVISION (Range METT-T Dependent) |
| Reconnaissance | LRSD, Division Troops, Battalion Reconnaissance, Cavalry Scouts | |
| Combat Operations | Division Troops | |

Figure 2. Operational Strata (Source: FM 7-93 1995, 1-3)

Initially, LRSDs were placed in the division cavalry squadrons and LRSCs were placed in the corps Military Intelligence Tactical Exploitation battalions. There was

considerable contention surrounding the proponentcy of long-range surveillance between the United States Army Infantry School (USAIS), the United States Army Intelligence Center and School (USAICS) and the John F. Kennedy Special Warfare School (JFK SWC). Ultimately, USAIS was named proponent for all LRS units. The realignment of LRSDs from division cavalry squadrons to the division Military Intelligence Battalion generated a memorandum of understanding (MOU) between USAIS and USAICS. The MOU was formalized in February 1990 (Spigelmire 1990). LRS units were now formally placed in the Table of Organization and Equipment (TO&E) of corps and division Military Intelligence Tactical Exploitation Battalions (TEB) and Combat Electronic Warfare and Intelligence (CEWI) Battalions with other HUMINT and Signal Intelligence (SIGINT) collection assets. This created a unique relationship of dual proponentcy for LRS units between the USAIS and the USAICS. The MOU outlined specific responsibilities between the two proponents. The USAICS is the proponent for all intelligence related LRS unit activities and is responsible for the LRS unit personnel slots within the TO&E of a Military Intelligence battalion. The USAIS is responsible for LRS unit training, doctrine, tactics, techniques, and procedures (TTPs) and LRS TO&E (Spigelmire 1990).

This unique dual proponentcy is the primary reason for LRS units inactivating in the active Army. While some reduction in the number of LRS units would be expected concurrent with an Army-wide drawdown, in recent years they have been disproportionately inactivated. As a result of the drawdown, the total number of LRS units in the Army has reduced from a total of five LRSCs and eighteen LRSDs to two LRSCs and five LRSDs. The high number of inactivations are depicted in table 1.

units in the Army has reduced from a total of five LRSCs and eighteen LRSDs to two LRSCs and five LRSDs. The high number of inactivations are depicted in table 1.

In addition to the loss of the LRS units from the inactivating divisions and corps, LRSD were removed from all heavy divisions despite their proven value during Desert Storm, and over the objections of division commanders (McCaffrey 1991,1). The first phase of LRS unit inactivations came in the initial wave of six divisions and one corps as a result of the post-Desert Storm drawdown. The second phase of LRS unit inactivations was based on the 1991 Total Army Analysis (TAA) force structure review. The decision to inactivate heavy division LRSDs was not based on Desert Storm After Action Reports (AARs), or on doctrine. Army leadership saw it purely as a personnel affordability issue (Silvasy 1991, 1). Though these divisions no longer had organic LRSDs, the requirement for HUMINT collection did not stop. Heavy divisions are now required to request LRS support from their corps LRSC. In spite of the increased command and control requirements for these LRSCs to support both division and corps missions simultaneously, there has been no associated upgrade in manning or organization. The consequence of this action is that the corps commander's LRS assets are now additionally tasked to provide liaison duties, as well as provide LRS teams for supported divisions. This double duty substantially degrades the collection capabilities in the corps area of interest.

The most recent (and potentially dangerous for active component LRS units) phase of LRS unit inactivations came as a result of the TAA conducted in 1995. The active component (AC) Military Intelligence TEB at I Corps and III Corps were inactivated and those HUMINT collection missions for two AC corps went to the

TABLE 1
MODERN LONG-RANGE SURVEILLANCE UNITS

| UNIT | TYPE OF UNIT | YEAR ACTIVATED | CURRENT |
|---------------------|---------------------|-----------------------|----------------------|
| SUPPORTED | | | STATUS |
| I CORPS | LRSC | 1994 | INACTIVE 1997 |
| III CORPS | LRSC | 1995 | INACTIVE 1997 |
| V CORPS | LRSC | 1987 | ACTIVE |
| VII CORPS | LRSC | 1987 | INACTIVE 1992 |
| XVIII ABC | LRSC | 1993 | ACTIVE |
| 1ST INF DIV | LRSD | 1987 | INACTIVE 1992 |
| 2ND INF DIV | LRSD | 1987 | ACTIVE |
| 3RD INF DIV | LRSD | 1987 | INACTIVE 1992 |
| 4TH INF DIV | LRSD | 1987 | INACTIVE 1995 |
| 5TH INF DIV | LRSD | 1987 | INACTIVE 1993 |
| 6TH INF DIV | LRSD | 1987 | INACTIVE 1997 |
| 7TH INF DIV | LRSD | 1987 | INACTIVE 1993 |
| 8TH INF DIV | LRSD | 1987 | INACTIVE 1992 |
| 9TH INF DIV | LRSD | 1987 | INACTIVE 1993 |
| 10TH MNT DIV | LRSD | 1987 | ACTIVE |
| 24TH INF DIV | LRSD | 1987 | INACTIVE 1995 |
| 25TH INF DIV | LRSD | 1987 | ACTIVE |
| 82ND ABN DIV | LRSD | 1987 | ACTIVE |
| 101ST AASLT | LRSD | 1987 | ACTIVE |
| 1ST AR DIV | LRSD | 1987 | INACTIVE 1992 |
| 2ND AR DIV | LRSD | 1987 | INACTIVE 1995 |
| 3RD AR DIV | LRSD | 1987 | INACTIVE 1992 |
| 1ST CAV DIV | LRSD | 1987 | INACTIVE 1995 |

(Source: Matty 1997, 2)

Army National Guard (ARNG). Because I Corps and III Corps LRSCs were organic to their respective corps Military Intelligence TEB, they were inactivated in September 1997. The Department of the Army (DA) has directed that two ARNG LRSCs will become responsible for the LRS missions of these active component corps. Since neither I Corps and III Corps has any AC LRSDs, the ARNG LRSCs would be responsible for the AC divisions within their respective corps LRS missions as well. Currently there are three LRSCs and nine LRSDs in the ARNG. None of the ARNG LRSDs have a direct alignment with an AC division.

It is incomprehensible that these reductions have been so severe in light of the fact that tactical reconnaissance operations has been identified by the Chief of Staff of Army as one of the top ten "Trend Reversal" topics for the Army. Additionally, the requirement for reconnaissance, surveillance, and targeting operations is specifically addressed in the most recent version of FM 100-5 (FM 100-5 1997, 13-8).

While the USAICS still forecasts LRS as an intelligence collector in the near term, its future beyond is clearly in jeopardy. As the drawdown has continued, DA has attempted to reduce mission redundancy between the active and reserve component (RC). Combat support (CS) and combat service support (CSS) units in the active Army are scrutinized during the biennial TAA process. AC CS and CSS units are being inactivated where the RC has units that can accomplish the mission. Military intelligence battalions are CS units. All LRS units are organic to a military intelligence battalion TO&E. When the parent organization inactivates, all subordinate units also inactivate. Should the

present trends continue, LRS capability of every division and corps will significantly degrade or disappear altogether.

Currently, LRS units are organized, resourced, and trained to fight the Warsaw Pact threat in the high intensity conflict scenario of the Fulda Gap. The Army is undergoing reorganization to meet the challenges facing the defense of the United States and its national interests in the twenty-first century. While the employment of LRS assets remain in the Army's emerging doctrine, it is questionable whether the current organization and force structure are capable of meeting the reconnaissance needs of this doctrine.

Assumptions

This study makes four assumptions. The first assumption is that LRS units will not leave the total Army force structure. The basis for this assumption is the requirement for LRS assets that are in the Army's capstone manuals, FM 100-5 (Operations), FM 100-15, *Corps Operations*, and FM 100-40 (Tactics). Technology cannot replace the human element in the reconnaissance fight. LRS teams will be used as confirming asset in conjunction with SIGINT and IMINT platforms, or in lieu of, when those platforms limitations prevent them from conducting their mission.

The second assumption is that every division in the AC requires LRS assets. Currently the divisions that do not have an organic LRSD request LRS teams from their corps. This is based on my personal knowledge and observations as the Army LRS proponent and as a former LRSC commander participating in corps and division warfighting exercises.

The third assumption is that the ARNG is incapable of maintaining the level of proficiency in LRS related missions and training to adequately support an active component corps. This, again, is based on my personal experience as the LRS proponent. At the time of the inactivations of I Corps and III Corps LRSCs, I did an analysis of generic LRS unit collective tasks and individual skills required of a LRS team member. I compared the training time required for these collective and individual tasks based on my experience as a LRSC commander and compared them to the training days available for an ARNG unit. The result of the analysis was that an ARNG LRS unit did not have adequate training days to remain proficient in the collective and individual skills required to perform the LRS missions of an active component unit. These findings were briefed by a representative of the USAIS during the general officer steering committee for the TAA conducted in November 1997 at Forces Command (FORSCOM) headquarters. The result of the briefing assisted in postponing a decision to inactivate a portion of V Corps LRSC and augment that unit with ARNG LRS personnel.

The fourth and final assumption is that the active component force will not grow. Any reorganization of the Army's LRS community would have to be with the current active component force structure, complemented by the ARNG.

The Research Question

This study will analyze the future intelligence collection requirements for LRS units and compare those requirements to the current LRS organization, force structure, characteristics, capabilities, and limitations. The primary thesis question is: do the current organization and force structure for LRS units meet the intelligence collection

requirements expressed in the emerging operational concepts addressed in *Joint Vision 2010*?

The secondary questions are: What are the future intelligence collection requirements expressed in the emerging operational concepts addressed in *Joint Vision 2010*? What are the potential missions for LRS units based on the identified intelligence collection requirements? Under the current organization, is a LRS unit adequately manned and equipped to execute these potential missions? And, within the current force structure and in light of the intelligence collection requirements, what is the correct organizational structure for future LRS units?

Research Methodology

This thesis examines the emerging operational concepts as it relates to intelligence collection and analyzes the ability of the current LRS organization and force structure to execute future missions. The proposed study lends itself to both qualitative and quantitative analysis. The research approach is comprised of three phases. The first phase will be to determine what are the intelligence collection requirements of LRS units expressed in the emerging operational concepts and doctrine. The second phase of the research will be the development of a questionnaire that will be distributed to a small sample population of leaders in the Army who are currently, or previously, commanded, trained or employed LRS units. During this phase, quantitative analysis will be used in an attempt to establish inferences and generalizations on specific capabilities, characteristics, and missions for future LRS units. The third and final phase of the research approach will be to determine criteria, based on the literature review and the responses from the sample

population, which would assist in the evaluation of the current LRS organization and force structure. Taken together, the study will attempt to build a paradigm which will assist in answering the research question and provide a quantifiable recommendation for a HUMINT collection organization to carry the Army into the twenty-first century. At its endstate, the thesis will provide specific recommendations regarding capabilities, organization, and force structure and for future LRS units.

Key Definitions

AirLand Battle Doctrine (ALB). First developed in 1982, this is the basis of the doctrine under which we currently fight. Designed to defeat a Warsaw Pact threat in Europe by engaging multiple echelons of the enemy throughout the depth of battlefield, the primary concepts of the doctrine are initiative, depth, synchronization and agility.

Army of Excellence (AOE). The name given to the initiative which directed a major new design and structuring approach to the U.S. Army's tactical units in 1983.

Battle Damage Assessment (BDA). One of the four doctrinal missions of LRS, it is defined as the timely and accurate estimate of damage resulting from the application of military force, either lethal or nonlethal, against an objective or target.

Combat Information. Data that can be used for fire or maneuver decisions as received without further processing, interpretation, or integration with other data.

Doctrine, training, leadership, organization, material, and soldiers (DTLOMS). Acronym for an Army model which analyses existing systems, organizations, or units.

Human intelligence (HUMINT). Any intelligence collected through human sources.

Imagery intelligence (IMINT). Any intelligence obtained from the analysis of radar, photographic, infra-red, and electro-optical imagery.

Intelligence. The product resulting from the collection, evaluation, analysis, integration, and interpretation of all available information concerning an enemy force, foreign nations, or areas of operations and which is immediately or potentially significant to military planning and operations.

Reconnaissance. One of the four doctrinal mission of LRS, it is defined as any mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy or about the meteorological, hydrographic, or geographic characteristics of a particular area.

Signals intelligence (SIGINT). Intelligence derived from the intercept, analysis, and exploitation of enemy radio electronic emissions.

Surveillance. One of the four doctrinal mission of LRS, it is defined as the systematic observation of airspace or surface areas by visual, aural, electronic, photographic, or other means.

Target Acquisition (TA). One of the four doctrinal missions of LRS, it is defined as the detection, identification, and location of key enemy targets.

Table of Organization and Equipment (TO&E). A document which lists the authorized levels of personnel, by rank and military occupation specialty, and equipment for a specific unit.

Total Army Analysis (TAA). A biennial force development process conducted by the Department of the Army to determine total force requirements using qualitative and quantitative analysis.

Limitations

This research is constrained by two limitations. The first limitation is based on the assumption that the AC will not gain authorization from Congress to increase the size of the force structure. This study will make recommendations for future LRS organizations based on the size of the current active duty LRS personnel force structure.

The second limitation is the size of the sample population that is completing the questionnaire. The distribution of the questionnaire is limited to the key individuals in the field who are currently considered as LRS subject matter experts (SMEs). LRS personnel comprise only .125 percent of the total active Army force structure--approximately 600 soldiers. Of this extremely small population, only ten percent are in leadership positions. The intent is to gather data by distributing the questionnaire to the most experienced individuals in the field of LRS training and employment. While the sample may be small, approximately thirty questionnaires, the data gathered would be analyzed in order to make a set of inferences and generalizations, which will assist in answering the thesis questions.

Delimitations

A complete DTLOMS analysis is required to do a thorough examination of LRS in the Army. Unfortunately, the restrictions inherent in this program prohibit a complete study. The crux of the issue lies in the future mission and unique requirements of LRS. Within the DTLOMS model, this study will only analyze doctrine and organization. It

does not include an examination of how senior army leaders are trained in the employment of LRS assets or how LRS unit leaders and soldiers are trained. Additionally this study will not analyze specifically what type of equipment will be required in order to accomplish future missions, or how LRS soldiers are selected.

Significance of the Study

This study is significant for several reasons. First, the Army is losing highly perishable individual and collective skills. The unique missions of LRS unit operations are slowly leaving the active Army completely. While there are requirements and missions for ARNG LRS units, the hazardous nature of LRS missions require continuous training on METL and collective tasks.

Secondly, the threat by which the model for modern LRS units are based no longer exists. While the requirement for these exceptional soldiers still exists, their mission, roles and capabilities should be modified to meet the challenges of the twenty-first century.

It is not the intent of this study to do a post-mortem of how the Army has misused and ignored its LRS to the point that only 50 percent of the active corps and divisions have these valuable organic intelligence collection assets. Instead, this study intends to analyze the lessons learned from the past and apply that knowledge with a set of inferences and generalizations to make recommendations for the road to Joint Vision 2010. At end state, this study will provide a proposed concept and organization for future LRS and reconnaissance unit employment.

CHAPTER TWO

LITERATURE REVIEW

Expanding battlespace dramatically increases the need for timely and accurate information because the dispersion of forces and the volume of information potentially degrade the coherency of battlefield perception. This condition results in a convulsive expansion in wartime of the formations and instruments of information collection and reconnaissance. In the language of Force XXI, this expansion is essential to dominant battlefield awareness and dominant battlefield knowledge. Awareness means knowing where the enemy is. Knowledge--the product of reconnaissance--informs you about what the enemy is doing or is going to do. Both conditions are essential features of future warfighting. (Macgregor 1997, 50)

Background

The primary purpose for reconnaissance and surveillance operations is to provide the commander specific intelligence on an enemy or terrain that will aid him in the conduct of military operations (FM 101-5-1 1997, 1-130). As a prelude to examining the literature on emerging reconnaissance requirements, it would be helpful to review how and why the current Long-Range Surveillance (LRS) organizations were formed. An understanding of the origins and requirements of LRS units on the battlefield will establish a base knowledge prior to researching the literature on current doctrine, organizations and force structure in today's Army. The chapter concludes with the analysis of literature on future intelligence collection requirements that can be used to evaluate the potential effectiveness of current LRS doctrine, organizations and force structure in fulfilling their future missions.

Development of the AirLand Battle Doctrine and the Army of Excellence

Current LRS unit doctrine and organization have their roots in the development of the AirLand Battle doctrine and the emergence of the Army of Excellence. To a great extent, the AirLand Battle concept sprang from the doctrinal views of General Donn A. Starry, who began his four-year tenure as Training and Doctrine Command (TRADOC) commander in July 1977. Together with the major Army 86 Studies undertaken by Starry and his planners during 1978-80 to define the new tactical field organization that became known as the Army of Excellence (AOE), AirLand Battle (ALB) doctrine became the dominant influence on the modernizing the Army of the 1980s. However, the doctrine that the Army adopted in 1982 was itself a product of, and reaction to doctrinal currents that extended deep into the preceding decade (Romjue 1984, 1).

The Soviet threat of echeloned waves of armored divisions rolling west from East Germany forced the post-Vietnam Army to change at its very core. The doctrinal reassessment that began in the early 1970s took place within the larger framework of the Army's reorientation from the terminating infantry-airmobile war in Vietnam to the arena of conventional combined arms warfare in the theater of primary strategic concern to the United States (US), Western Europe. The Soviet military buildup of the late 1960s and 1970s sharpened the focus on North Atlantic Treaty Organization (NATO) defense and on tactics of conventional land battle (Romjue 1984, 3).

Using the 1973 Arab-Israeli War as a template which exemplifies the speed and lethality of modern warfare, then TRADOC commander General William E. DePuy set about re-writing Army doctrine to fight the Soviet Union and their allies on the plains of

West Germany (Romjue 1984, 4). The plan for the defense of Western Europe was based on the doctrinal concept of the Active Defense and was officially implemented in July 1976. A product of intense analysis of the new technology of weaponry, the doctrine confronted directly the prime strategic problem the Army faced: a US force quantitatively inferior in men and equipment on an armor dominated European battlefield (Romjue 1984, 5). Additionally, the doctrine stressed the demise of the old mobilization concept as a strategic factor. Because of the lethality of modern weapons, and their expected improvements, the 1976 version of FM 100-5, *Operation*, stressed the fact that very high losses could occur in a short period of time if forces were improperly employed. It characterized a European war as short and intense--the outcome of which may be dictated by the results of the initial combat (FM 100-5 1976, 1-1). Readiness and effectiveness were keynotes of the volume (Romjue 1984, 6). "*The US Army must prepare its units to fight outnumbered, and to win*" (FM 100-5 1976, 1-2). Critics of the Active Defense felt that its emphasis on the defense, overwhelming firepower, and its "first battle" orientation underemphasized the spirit of the offense and maneuver warfare in Army doctrine and that the success was based on US forces surviving a war of attrition (Romjue 1984, 15-16).

As stated earlier, the development of ALB began with the assignment of General Donn Starry as TRADOC commander in 1977. An experienced armor officer and former corps commander, Starry served to focus attention on what he referred to as the "Central Battle"--a future decisive confrontation between NATO and Warsaw Pact forces in Europe. With growing concern over the expansion and modernization going on within the Warsaw Pact, officers in TRADOC and V Corps developed a mathematical, computer-

assisted "battle calculus" with which to study the huge decisive battle they envisioned (Leonhard 1991, 135-136). Battle calculus was nothing more than an analytical tool which crunched firepower figures in terms of overall numbers, ranges, effectiveness, and lethality. The sum total of which still gave a disturbing answer: even factoring in the latest technology and equipment that the West could offer, the force ratios and anticipated loss rates in the Central Battle would eventually produce a Warsaw Pact victory. Something had to be done to even the odds in the close fight (Leonhard 1991, 137).

The solution lay in preventing follow-on echelons from influencing the close fight. Abandoning the notion of winning the fight only in the main battle area, the Army was now entering a new dimension of battle which permits the simultaneous engagements of forces throughout the corps and division areas of influence (TRADOC Pam 525-5 1991, 21). The principal means to separate the echelons of the enemy lie in the deep strike capability of the Air Force.

The four concepts of ALB doctrine are initiative, depth, agility, and synchronization. These concepts, applicable to offense and defense, formed the thrust of the new doctrine--the idea of seizing and retaining the initiative and exercising it aggressively to defeat the enemy.

Destruction of the opposing force is achieved by throwing the enemy off balance with powerful initial blows from unexpected directions and then following up rapidly to prevent his recovery. Units will attack the enemy in depth with fire and maneuver and synchronize all efforts to attain the objective. They will maintain the agility necessary to shift forces and fires to the points of enemy weakness. Our operations must be rapid, unpredictable, violent, and disorienting to the enemy (FM 100-5 1982, 2-1).

The friendly echelon of focus for the new doctrine was the corps. Seen as the pivotal headquarters between the tactical and operational levels of war, the corps was to fight its battle out to 150 kilometers forward of the forward line of troops (FLOT), and be aware of events out to 300 kilometers. Corps was to play the critical role in identifying enemy deep targets for the Air Force to destroy, disrupt, or delay the first echelon, while simultaneously preventing the second echelon from influencing the battle (Leonhard 1991, 137).

In order to execute this doctrine the Army required a major new design and structuring approach to the tactical organizations and better weapons than the enemy. The result was the AOE and the development and fielding of the superior weapon systems that exist today. A new generation of weaponry and equipment became standard in the majority of fighting units--systems the most prominent of which were the Abrams tank, the Bradley Fighting Vehicle, the Apache and Black Hawk helicopters, the Patriot air defense system, the multiple launch rocket system (MLRS), and the shoulder-fired Stinger air defense missile (Romjue 1993, 3-4).

LRS in AirLand Battle

The heart of AirLand Battle doctrine was the Army's ability to strike at the second echelon to prevent them from influencing the close fight. FM 100-15, *Corps Operations*, identifies the functions of deep operations in either the offense or defense. Two of those functions are the destruction of enemy units and critical targets and providing the commander with information and intelligence about enemy capability in depth (FM 100-15 1996, 2-6).

When planning deep operations, the targeting methodology is a critical element. The decide, detect, deliver, and assess (D3A) target methodology enables the commander and staff to take the initiative in selecting high-payoff targets (HPTs) before they actually present themselves in the target array (FM 100-15 1996, 2-6). The D3A methodology is closely tied to the intelligence collection plan. Intelligence assets, specifically LRS teams, are trained to execute target acquisition and battle damage assessment, the "detect" and "assess" in D3A (FM 7-93 1995, 2-4).

FM 34-1, *Intelligence and Electronic Warfare Operations*, the Army's capstone manual for Military Intelligence (MI) doctrine, has its own interpretation of how intelligence collection in ALB doctrine assisted deep operations. MI units provide early warning of enemy approach. They find, track, and target enemy forces enabling the commander to attack them effectively at long range. Corps and division aerial resources, LRS units, theater, other services, and national systems provide information needed for deep operations. Deep collection operations locate such HPTs as enemy second and follow-on echelons, critical Command and Control (C2) nodes, reconnaissance elements, fire support elements (FSEs), and logistics trains (FM 34-1 1986, 4-9).

Target acquisition (TA) and battle damage assessment (BDA) were not the only missions that LRS teams were required to accomplish. In spite of the plethora of signal intelligence (SIGINT) and imagery intelligence (IMINT) assets that that were being employed on the modern battlefield, human intelligence (HUMINT) is the most reliable (Grange 1999). The most pressing concern of a corps or division commander engaged in combat is knowledge of the enemy to his front or to his flanks, and how that enemy may

affect his mission. The commander must surprise the enemy and catch him at a disadvantage as often as possible. To do so, the commander must see well forward and know the areas of operation and interest. He must also know the enemy's capabilities, strengths, location of reinforcements, density of air defense, and activities. This information is obtained through intelligence activities that provide the basis for tactical and operational decisions. Conduct of Army operation is based on timely intelligence from organic and higher sources at corps. Real-time HUMINT information is needed to complement electronic and imagery intelligence systems. LRS units at corps and division play an active part in the Army operations by providing that information (FM 7-93 1995, 1-3).

FM 34-1 addresses HUMINT under Intelligence disciplines and functions. HUMINT is the oldest of the intelligence disciplines. HUMINT is particularly important in force protection during Military Operations Other Than War (MOOTW). Although HUMINT can be a sole collection discipline, it is normally employed to confirm, refute, or augment intelligence derived through other disciplines. HUMINT is less restricted by weather or the cooperation of the enemy than technical means. Interrogation and document exploitation are examples of HUMINT operations. HUMINT collection is also conducted by LRS units (FM 34-1 1986, 2-4). Additionally, FM 100-15 specifically addresses LRS, along with Special Operations Forces (SOF), as a HUMINT collection asset available to the corps commander that can conduct special reconnaissance and surveillance operations. These mission are conducted in order to obtain or verify, by visual observation or other collection methods, information concerning the capabilities,

intentions, and activities of an actual or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area (FM 100-15 1996, 2-25).

As discussed in chapter one, the operational paradigm for LRS employment on a linear battlefield is forward of the battalion reconnaissance teams and cavalry scouts at the tactical level of war, and behind SOF teams at the operational level (figures 1 and 2). The Long-Range Surveillance Leaders Course (LRSLC) at Fort Benning, Georgia, teaches that the doctrinal mission statement for LRS units is to conduct long-range reconnaissance, surveillance, battle damage assessment and target acquisition missions deep behind enemy lines using infantry and ranger skills combined with skilled communications and operators and intelligence personnel to collect and report battlefield information.

LRS teams are organized, trained, and equipped to enter enemy areas to observe and report enemy dispositions, movements and activities, and battlefield conditions. The teams' missions, targets, and objectives are based on the intelligence requirements of the commander. Teams infiltrate selected areas by air, ground, water, or stay-behind. While avoiding contact with the enemy and local civilians, these teams observe. They may emplace a variety of sensors and special purpose equipment to detect, observe, and monitor enemy activities. They perform other specified collection tasks as well. LRS teams are not intended, and lack the capability, to conduct direct-action missions. Their mission of limited reconnaissance, stationary surveillance, target acquisition and battle damage assessment is different from the missions of most SOF units (FM 7-93 1995, 1-2).

Organization

A LRS unit may be a company (LRSC) or a detachment (LRSD). A LRSC is organized as a company organic to the MI brigade at corps (figure 3). It consists of 163 personnel. The LRSC is organized with a headquarters platoon, communications platoon, three surveillance platoons--each consisting of six surveillance teams. The leaders are airborne and ranger qualified. All other personnel in the company are airborne qualified (FM 7-93 1995, 1-6).

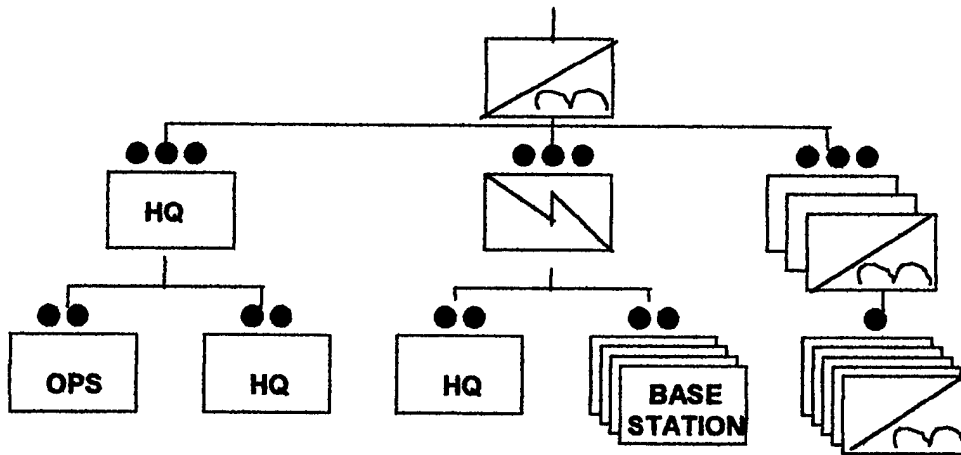


Figure 3. Long-range surveillance company (Source: FM 7-93 1995, 1-6)

The LRSD is organized as a detachment organic to the MI battalion at division level (figure 4). A LRSD consists of fifty-six personnel. These detachments are organized into a headquarters section, communications section, and six surveillance teams. The leaders are airborne and ranger qualified. All other personnel in the company are airborne qualified (FM 7-93 1995, 1-8).

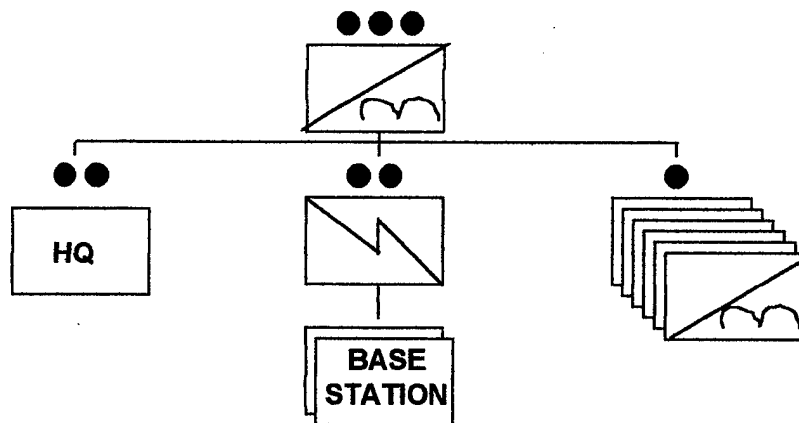


Figure 4. Long-range surveillance detachment (Source: FM 7-93 1995, 1-8)

The LRS team is comprised of six men (figure 5). Each team is lead by a ranger qualified staff sergeant (SSG), and assisted by a ranger qualified sergeant (SGT). The other members a LRS team may rank from specialist (SPC) to private (PVT). The teams obtain and report information about enemy forces within their assigned areas. Teams can operate independently with little or no external support in all environments. They are lightly armed with limited self-defense capabilities. To be easily transportable, they are equipped with lightweight, man-portable equipment. The teams are limited by the amount of weight that they can carry or cache. Because all team members are airborne qualified, all means of insertion are available to the commander when planning operations. Additionally, one team per detachment and six teams per company are also authorized High Altitude Low Opening (HALO) qualification to add to their insertion capabilities (FM 7-93 1995, 1-9).

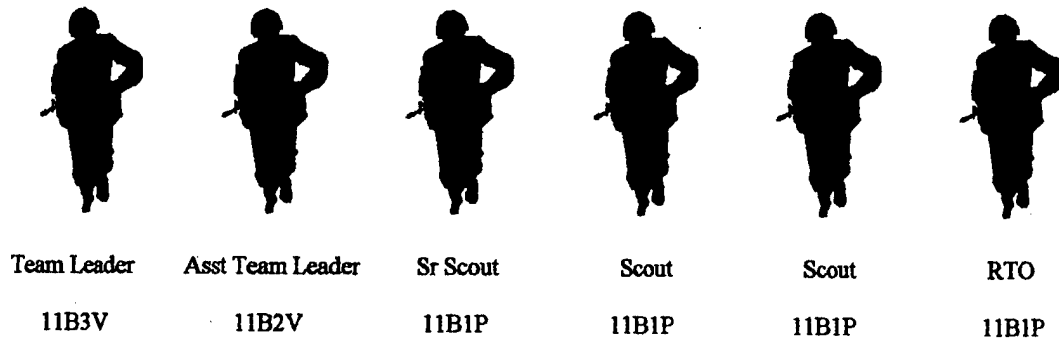


Figure 5. Long-range surveillance team

Capabilities

LRS teams are not special operations forces, but their doctrine, tactics, equipment, and techniques are similar. The organization, strength, and equipment of teams are based on the mission and the environment of the operational area. LRS units have the capability to:

1. To be committed in specific locations within enemy-held territory by stay-behind methods or delivery by land, water, or air, to include parachute.
2. To operate in enemy-held territory for up to seven days with minimal external direction and support.
3. To conduct surveillance, reconnaissance, target acquisition, and battle damage assessment missions in all types of terrain and environments.
4. To conduct operations in bad weather and over difficult terrain.
5. To be recovered by air, land, or water; to linkup with advancing forces; or to return using evasion techniques.

6. To operate using planned, automatic resupply drops or special equipment cache sites set up by the LRS unit or other friendly forces. They also use captured supplies and equipment (FM 7-93 1995, 1-9).

Limitations

LRS units are limited by the following considerations.

1. Mobility is restricted to foot movement in the area of operations.
2. Teams cannot maintain continuous communication with the controlling headquarters because of equipment limitations and the enemy's use of radio and electronic surveillance devices. Teams only establish communications at scheduled times or to report critical combat information.
3. Organic medical capability is limited to individual first aid.
4. Teams are lightly armed and have limited self-defense capability. They fight only to break contact.
5. Long-range surveillance units require support from higher headquarters in:
 - a. Maintenance, supply, mess, medical, administration, finance, personnel and chaplain services.
 - b. Area communication integration and access to a common-user telephone system.
 - c. Frequency management for HF and SATCOM access.
 - d. Packing, rigging, and loading supplies and equipment for aerial resupply operations and parachute insertion operations.

- e. Army or Air Force air transportation to move the unit to the area of operations and ground transportation to move personnel and organic equipment in the area of operations.
- f. Intelligence products from division or corps headquarters (FM 7-93 1995, 1-9).

LRS Force Structure

Currently, organic LRS units support only 50 percent of the corps and divisions in the active force: two of the four corps and five of the ten divisions. The XVIII Airborne Corps at Fort Bragg, North Carolina, and V Corps in Europe each have a LRSC. The five divisions that have organic LRSDs are 2nd Infantry Division, 10th Mountain Division, 25th Infantry Division, 82nd Airborne Division, and the 101st Airborne Division (Air Assault). The total warfighting capability of these units provides fifty six-man surveillance teams and sixteen base radio stations plus command and control for each individual LRS unit. The sum total of all AC personnel assigned to LRS units at any time is 600.

The current army national guard (ARNG) force structure includes three LRSCs and nine LRSDs. Of the three LRSCs, two are responsible for the LRS missions of AC corps. The F Company, 425th Infantry (LRS) of the Michigan ARNG is aligned with I Corps, and H Company, 121st Infantry (LRS) of the Georgia ARNG is aligned with III Corps. Figures 6 through 9 depict LRS unit alignment for the total force.

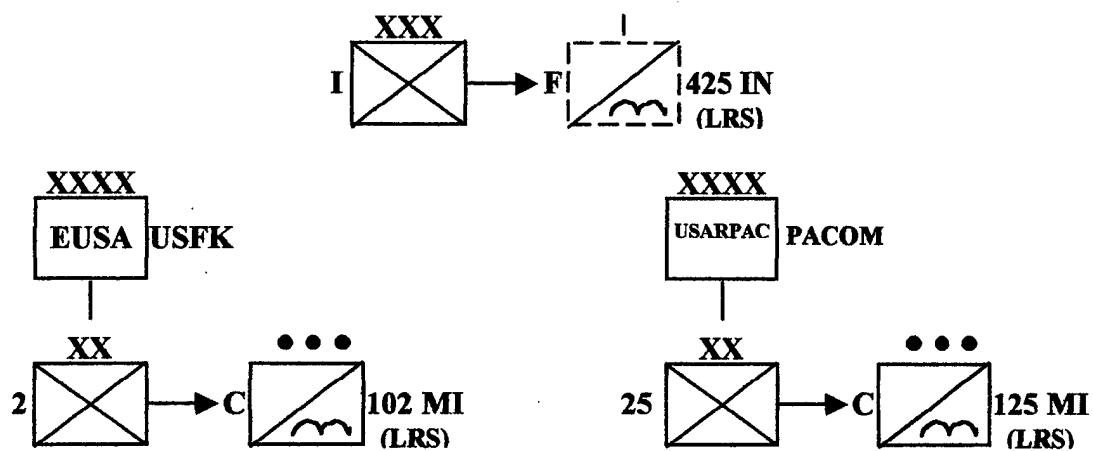


Figure 6. I Corps LRS force structure

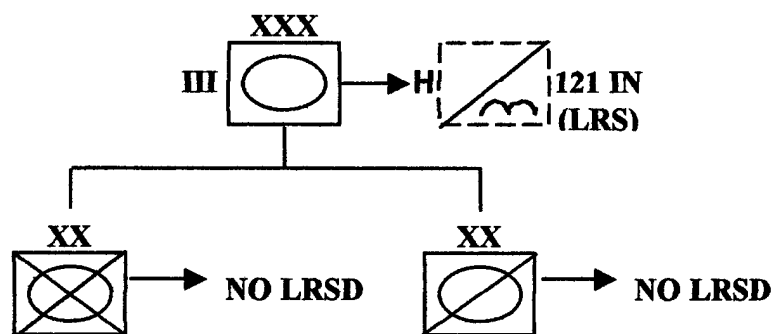


Figure 7. III Corps LRS force structure

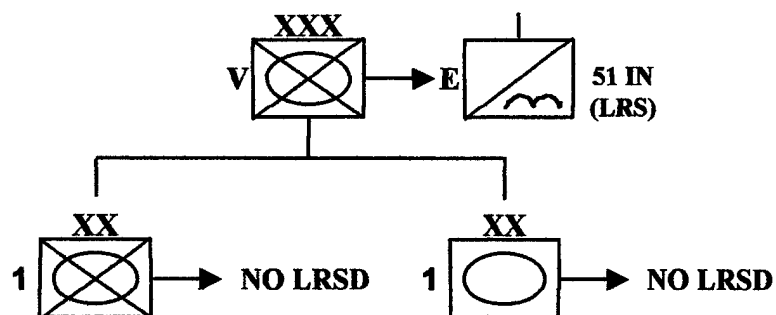


Figure 8. V Corps LRS force structure

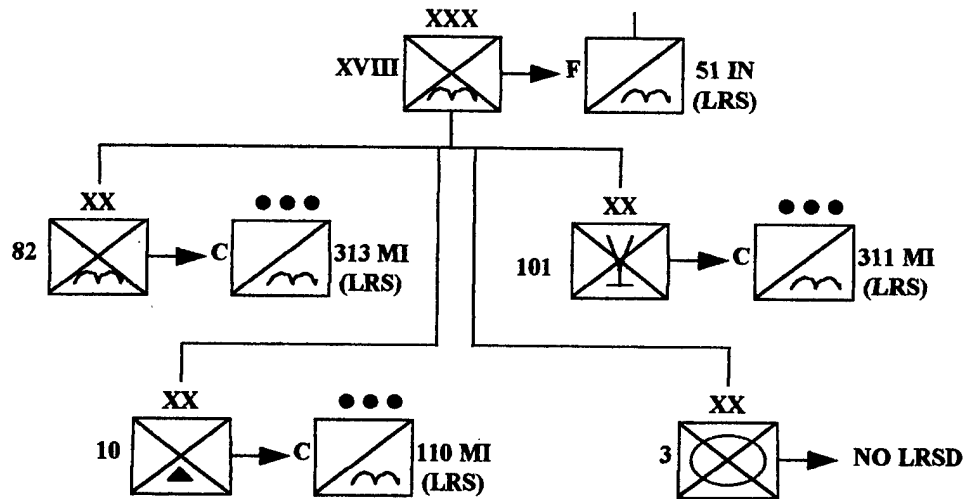


Figure 9. XVIII Airborne Corps LRS force structure

Each of these LRS units are separate and independent of each other. There is no overall tactical LRS headquarters at any level that is responsible for METL development, training, tactics, techniques and procedures. Each LRS unit develops their own mission essential task list (METL) based on the missions of the corps or division they are supporting. The approving authority for that METL is the MI battalion commander that the LRS unit is organic to.

The overall LRS community subject matter expert and advisor to the units is the doctrinal proponent for LRS operations in the Army: the commander of D Company, 4th Ranger Training Battalion. This unit runs the LRSLC and is responsible for LRS doctrine, tactics, techniques, procedures and the table of organization and equipment (TO&Es) of all LRS units. The commander is a captain.

Summary

LRS units were activated in MI battalions in 1986 during a cold war restructuring of the Army known as the Army of Excellence. Their primary missions were directly in line with the execution of the new AirLand Battle Doctrine. Formed at the division and corps, LRS teams were designed to be inserted deep between the echelons of our Warsaw Pact enemy and report vital combat intelligence or conduct target acquisition and battle damage assessment (BDA) missions.

The LRS force structure was originally designed for each corps and division to have an organic company or detachment, respectively. Though, through the drawdown and TAA process, LRS units have inactivated at a higher rate than the rest of the Army. Today only 50 percent of the corps and division have organic LRS units. This fact is equally surprising in light of the fact that though there is no longer a Soviet threat, LRS capabilities are specifically addressed in our most current doctrine. Additionally, these capabilities can also be employed against future threats to the United States and its interests in accordance with the emerging operational concepts identified in Joint Vision 2010 (JV 2010).

Future Army Operations

This country emerged from the latter half of the twentieth century, as the world's only superpower. The armed forces of the United States were required to refocus its methods, roles, and missions to meet the threats of a world where technology is advancing at an unprecedented rate and is no longer exclusive to the advanced world and just a westernized portion of the third world (*21st Century: Intelligence Estimate* 1999, 5).

Joint Vision 2010 is the conceptual template for how America's armed forces will face the threats of twenty-first century. This vision of future warfighting embodies the improved intelligence and command and control available in the information age and goes on to develop four operational concepts: dominant maneuver, precision engagement, full-dimensional protection, and focused logistics. The application of these four concepts will provide the United States with the capability to dominate an opponent across the range of military operations. This "full spectrum dominance" will be the key characteristic of the armed forces in the twenty-first century (*Joint Vision 2110* 1996, 1-2).

Army Vision 2010 is the blueprint for the Army's contributions to the operational concepts identified in *Joint Vision 2010*. It identifies the operational imperatives and enabling technologies needed for the Army to fulfill its role in achieving full spectrum dominance. *Army Vision 2010* also serves as a linchpin between Force XXI, the Army's ongoing process to manage change and advance into the twenty-first century with the most capable Army in the world, and the Army After Next (AAN), the Army's emerging long-term vision (*Army Vision 2010* 1996, 1-2).

Force XXI decisive operations are characterized by simultaneous, multidimensional, nonlinear operations over an extended battlespace conducted by integrated joint, multinational forces operating dispersed in order to execute distributed operations through rapid maneuver and fires to achieve decisive effects. They are also characterized by significantly increased operational tempo (OPTEMPO), precision fires, lethality, and the need for force protection throughout all phases of the operation (TRADOC Pam 525-XXX 1996, 2-2).

The Army sees its role in achieving full spectrum dominance in decisive operations by executing a deliberate set of patterns of operation. These patterns are not phases, nor are they sequential. They serve to focus the many tasks armies have always performed in war and other military operations. The patterns are: project the force, protect the force, shape the battlespace, decisive operations, sustain the force, and gain information dominance (*Army Vision 2010* 1996, 10).

These new operational concepts required the Army to develop new ways of approaching its key missions and both old and new kinds of enemies (*21st Century: Intelligence Estimate* 1999, 13).

In October 1995, General Hartzog, at that time the TRADOC commander, said: "Our core doctrine should be unified. We must fold our approach to peace operations, humanitarian assistance operations, and other military activities short of general war into the body of our Army operations doctrine and not treat these as separate and special subsets" (FM 100-5 1997 2-1).

This comprehensive view of Army doctrine recognizes that all operations incorporate four categories: offensive, defensive, stability, and support (FM 100-5 1997 2-1). Military operations other than war (MOOTW) and support and stability operations (SASO) are now firmly entrenched in our doctrine.

While the Army needs to be prepared to fight major theater wars (MTW), the modal mission environment will likely be at the low end of the conflict spectrum. The Army will more likely be involved in noncombatant evacuation operations (NEO), peacekeeping, humanitarian relief, and others--all the actions covered by the rubric of

MOOTW and SASO (*21st Century: Intelligence Estimate* 1999, 6). Recent operations in Southwest Asia, Panama, Somalia, Rwanda, Haiti, and Bosnia are a potential preview of the challenges that lie ahead and the wide range of missions the twenty-first century Army must be capable of accomplishing. These missions illustrate the complexity of force projection operations in both midintensity conflict and nontraditional settings and amplify the critical role technology will play in the future (TRADOC Pam 525-XXX 1996, 1-2).

Potential enemy states perceive US military forces as unparalleled in the execution of conventional military operations. In fact, the US military's philosophical and resource commitment to *Joint Vision 2010* indicates the US intends to retain its conventional military superiority for the foreseeable future. Foes will face an unpromising prospect: if they confront the US military on its own conventional military terms, they will lose. Therefore, such opponents will attempt to develop new methods to reduce US conventional military superiority, render it irrelevant, or to expose other perceived weaknesses in US national or military strategy. These new methods are asymmetric approaches, and they will become the dominant threat paradigm of the early twenty-first century information age (*21st Century: Intelligence Estimate* 1999, 14).

Within this threat paradigm lies the fact that by 2020 two-thirds of the global population will live in cities (*INTEL XXI Threat White Paper* 1998, 1). Large urban populations pose a special challenge to US Army forces responsible for defeating an identified opponent while minimizing friendly casualties and limiting collateral damage to noncombatants and civilian infrastructure. For these reasons, the urban environment provides a natural form of asymmetry to key components of *Joint Vision 2010*. Precision

engagement in civilian-rich battlefield is extremely difficult and dangerous. Full dimensional protection in man-made terrain which is not digitized, but is well known by the opponent is difficult as well; and focussed logistics while supporting the humanitarian needs of massed refugees would be extremely formidable. The obvious advantages presented by the urban challenge, teamed with urbanization trends, make such operations especially likely in a variety of US military deployments and missions (*INTEL XXI Threat White Paper* 1998, 3).

Across the entire range of potential military operations, intelligence collection will play a key role in achieving full spectrum dominance.

The Intelligence Role in Achieving Full Spectrum Dominance

As mentioned earlier, the Army sees its role in achieving full spectrum dominance by executing a deliberate set of independent patterns of operation that serve to focus the many tasks armies have always performed in war and other military operations. The patterns are: project the force, protect the force, shape the battlespace, decisive operations, sustain the force, and gain information dominance (*Army Vision 2010* 1996, 10).

The Army's intelligence forces of the twenty-first century will be designed, equipped, and trained to support Force XXI operations. They will be capable of:

1. Providing wide area, multi-spectral surveillance of the battlespace.
2. Aggregating and fusing bottom-up with top down feeds as low as brigade level.
3. Producing an "in-time" common relevant picture of battlefield visualization and situational awareness.

4. Accurately locating, identifying and tracking high payoff targets and conducting BDA.
5. Accessing, leveraging and interoperating with joint and multinational capabilities.
6. Conducting Command and Control Warfare (C2W) operations.
7. Providing support to force protection operations.
8. Assisting in friendly force tracking.

INTEL XXI forces will operate as an integral part of Force XXI. The pattern of operations described previously serve as the conceptual framework for the evolution of INTEL XXI and how it will support commanders in the future (TRADOC Pam 525-XXX 1996, 2-3,4).

Conclusion

The requirement for LRS units is just as relevant today as they were at the development of AirLand Battle doctrine. The unique capabilities that LRS units offer are clearly reflected in the emerging operational concepts and will play a critical role in the execution of future military operations and the achievement of full spectrum dominance. The role that LRS units are will play within the paradigm of full spectrum dominance will be analyzed in chapter four.

CHAPTER THREE

RESEARCH METHODOLOGY

The soldier needs to learn to apply technology and to become its master and not however, to become its servant. Progressive, modern and trailblazing are adjectives denoting all those who can only imagine further development as a further improvement of technology. Those who venture doubt are classified as behind the times. (Uhle-Wettler 1990, 1)

Research Approach

The proposed study lends itself to both qualitative and quantitative analysis. The research approach is comprised of three phases. The first phase will be to determine what exactly are the intelligence collection requirements of LRS units expressed in the emerging operational concepts and doctrine. The second phase of the research will be the development of a questionnaire that will be distributed to key individuals in the field who are currently considered as SMEs on LRS operations and training. As stated previously, LRS personnel comprise a small fraction of the total active Army force structure. The intent is to gather data by distributing the questionnaire to the most experienced individuals in the field of LRS training and employment. While the sample may be small, approximately thirty questionnaires, the data gathered will be analyzed in order to make a set of inferences and generalizations, which will assist in answering the thesis questions.

The third and final phase of the research will be to determine criteria based on the intelligence collection requirements and the responses from the sample population. The criteria will assist in the evaluation of a LRS organization and force structure which would accomplish their future intelligence collection missions. Requirements for the selection of the evaluation criteria would be that the criteria must be definable and measurable. Taken

together, the study will attempt to build a paradigm which will assist in answering the research question below and provide a quantifiable recommendation of a HUMINT collection organization to carry the Army into the twenty-first century.

Research Question

This study is attempting to determine the best organization and force structure for long-range surveillance units in order to meet the intelligence collection requirements expressed in the emerging operational concepts addressed in *Joint Vision 2010*.

The subordinate research questions below will also play a role in determining the evaluation criteria used to assist in answering the research question:

1. What are the future intelligence collection requirements expressed in the emerging operational concepts addressed in *Joint Vision 2010*?
2. What are the potential missions for LRS units based on the identified intelligence collection requirements?
3. Under the current organization, is a LRS unit adequately manned and equipped to execute these potential missions?
4. Within the current force structure and in light of the intelligence collection requirements, what is the correct organizational structure for future LRS units?

The literature review resulted in the development of five hypotheses concerning LRS organizations and capabilities.

1. The current LRS force structure and organizations do not adequately support a force projection Army that must be prepared to contend with future Military Operations

Other Than War (MOOTW), Stability and Support Operations (SASO) as well as the threat of conducting operations in two near simultaneous major theater wars (MTWs).

2. There is a requirement for a centralized command and control element for LRS units above the company and detachment level that would be responsible for the individual and collective training in order to ensure a level of synergy exists between subordinate units and the higher headquarters employing LRS assets.
3. The emergence of the asymmetrical threat and future urbanization of global populations portend a greater reliance on HUMINT and the capabilities of LRS units.
4. LRS units are capable of accomplishing additional missions besides reconnaissance, surveillance, target acquisition and battle damage assessment (BDA). Specifically, the surveillance and communication capabilities of LRS units can play a critical role in force protection and the prevention of terrorist attacks on US military buildings on foreign soil. Other possible missions include combat search and rescue (CSAR) and pathfinder operations.
5. The name "Long-Range Surveillance" is no longer relevant in the distributed battlefield. While the requirement for deep reconnaissance is still valid, the most likely employment of these intelligence collectors will be within a much closer range than previously required. This would make the phrase "long-range" a misnomer. Additionally, "surveillance" is linked more to a SIGINT or IMINT platform than to HUMINT. While passive observation of a NAIs, TAIs or specific areas are some of the primary jobs for these intelligence collectors; the term "reconnaissance" more aptly describes a human collector as opposed to a platform.

A method to test these hypotheses will be to analyze the responses generated by the questionnaire administered to a small sample population of SMEs.

Research Instruments

The following instruments are designed to assist in answering the subordinate research questions and hypotheses:

1. Although technically not a research instrument, an analysis of the literature will answer many of the subordinate research questions.
2. A questionnaire will be administered to a small sample population of LRS SMEs in the Army who are currently, or previously, commanded, led, employed or trained LRS units.

Literature Analysis

The literature analysis has three objectives. The first objective will be to determine the relevance of LRS units in future operations. The second objective will be to analyze emerging operational concepts in order to understand what will be the requirements of LRS units in the twenty-first century. This determination will answer the first two of the subordinate research questions about what are the future intelligence collection requirements expressed in the emerging operational concepts addressed in *Joint Vision 2010*, and what the potential missions for LRS units are based on the identified intelligence collection requirements. The third and final objective of the literature will be to develop criteria to analyze the current LRS organizations and force structure in order to determine their ability to accomplish future missions. These criteria will be compared to

the findings resulting from the questionnaire resulting in a LRS paradigm (organization and capabilities) to be tested throughout the remainder of the research.

Questionnaire

The other research instrument will be a questionnaire (see appendix), which will focus on questions relating to the five hypotheses listed previously. The purpose of the questionnaire is to garner a consensus among LRS SMEs concerning the future force structure, organization, roles, and missions of LRS units.

The questionnaire will be distributed to a small sample of officers and senior noncommissioned officers who have either trained, lead, employed or commanded LRS soldiers and units. The researcher will either personally or electronically deliver the questionnaire to the selected leaders. The respondents will have one week to return the questionnaire to the researcher. The results of the questionnaire will be analyzed in order to establish a set of inferences and generalizations that will assist in answering the secondary thesis questions. The questionnaire is divided into four sections: LRS force structure, LRS organization, roles and missions, and issues and perceptions. The desired results and construction of the survey pertaining to each of these areas are described in detail below.

LRS Force Structure

The questionnaire will attempt to gain a consensus on the proper force structure for LRS in today's Army. The literature review revealed that active component LRS units support only 50 percent of the active force. The questionnaire will attempt to gain a consensus from the SMEs concerning the adequacy of the current force structure and it's

ability to accomplish future missions. A determination of a concept for LRS support in the Army will be the desired result.

LRS Organization

The questionnaire will attempt to determine the correct organization and leadership structure for future LRS units. The literature review suggests that future organizations must be CONUS-based, modular organizations capable of rapid deployment.

Additionally, these organizations must be multicomponent, capable of quickly integrating reserve component organizations to augment the active force. Given the current structure and organization of LRS units, the ability to seamlessly be integrated into force projection packages is questionable. A determination of the organization that can accomplish the JV 2010 objectives will be the desired result.

This section of the questionnaire will also attempt to gain a consensus on whether there is a requirement for a centralized command and control element for LRS units above the company and detachment level. The literature review revealed that no individual above the rank of captain commands LRS units. Consequently, there is a lack of continuity and synchronization among LRS units in the active and reserve component. A lieutenant colonel commanding a corps LRS battalion would be responsible for the individual and collective training of subordinate division LRS detachments and their respective teams in order to ensure a level of synergy exists between those subordinate units and the higher headquarters employing LRS assets. Additionally, the LRS battalion commander would act as the chief of reconnaissance for the corps commander. A determination of the feasibility and practicality of such a position will be the desired result.

Future LRS Roles and Missions

The purpose of this section of the questionnaire will be to attempt to gain an understanding of what the respondents feel are the future roles and missions of LRS units in light of the emerging operational concepts of *Joint* and *Army Vision 2010* and the future threat analysis from the United States Army Intelligence Center and School (USAICS). The literature review suggests that within twenty years one-third of the global population will be in cities. In spite of our technological advantages of airborne surveillance platforms and precision engagement capabilities, adversaries in an urban environment will attempt to gain an advantage due to the US reluctance to inflict collateral damage to non-combatants and urban infrastructure. HUMINT will play a key role in combating these potential adversaries.

Additionally, the literature review suggests that force protection will play a critical role future MOOTW and SASO operations. LRS teams are already trained in passive, stealthful surveillance of named areas of interest (NAIs) from either one or multiple locations. These skills are the same required to conduct counter-surveillance and reconnaissance missions waged against potential terrorist attacks on US military buildings or personnel. A determination of the different types of missions and capabilities for future LRS units will be the desired result.

Issues and Perceptions

The purpose of this section of the questionnaire will be to gain an understanding of what the SMEs feel are the key issues within the LRS community today. The basis for questions in this section is not necessarily derived from the literature review, but rather

from the experiences of the researcher and resulting hypotheses. The questions in this section will first address the name “Long-Range Surveillance” and attempt to get a consensus whether the SMEs feel that name is relevant for future intelligence collectors. Secondly, this section will address LRS dual proponentcy and its ramifications. A determination of the respondent’s perception of support from the military intelligence and infantry communities will be the desired result. Next, this section will address the degree to which the SMEs feel LRS units are supported and utilized in the field. And finally, the questionnaire concludes by attempting to garner a consensus from the SMEs on LRS mission preparation. A determination of whether a LRS team can be tasked and employed in a more responsive manner will be the desired result.

Summary

Qualitative analysis will be the primary method to analyze the literature. Quantitative analysis will be used to determine descriptive statistics derived from the questionnaire. The literature analysis will be the primary instrument due to the small sample population to which the questionnaire will be administered. The conclusions drawn by the researcher from the literature review will be compared to the statistical results of the questionnaire. The baseline criteria for measurement are the subordinate research questions in relation to the criteria that will be derived from the literature review and questionnaire results.

The next chapter describes the results of the analysis of the research. The study will first discuss the findings of the literature review then compare those results with

information derived from the questionnaire. The chapter concludes with a set of criteria, which will be used to answer the subordinate and primary research questions.

CHAPTER FOUR

ANALYSIS

What is called foreknowledge cannot be elicited from spirits, nor from gods, nor by analogy with past events, nor from calculations. It must be obtained from men who know the enemy situation (Sun Tzu 400 B.C., 145).

This chapter analyzes, interprets, and makes inferences about the subordinate research questions based on the results of the literature review and answers derived from the questionnaire administered to LRS subject matter experts (SMEs). As described in the previous chapter, the baseline criteria for measurement are the subordinate research questions in relations to hypotheses derived from the literature review and questionnaire results. The first section of the analysis examines the literature review in relation to the relevance of LRS units in the current Army force structure. This section will address the first two subordinate research questions. The second section describes in detail the small sample population of LRS SMEs who were administered the questionnaire. The third section examines the results of the questionnaire. The fourth section of the analysis compares the results of the questionnaire to the hypotheses the researcher developed from the literature review and identifies common trends between the two. The final section of the analysis will develop a set of criteria based on the common trends between the hypotheses developed from the literature review and results of the questionnaire, which will be used through the remainder of the research to answer the remaining subordinate questions and provide an answer to the primary question.

Results of the Literature Review

The requirements for LRS units are just as relevant today as they were during the development of AirLand Battle doctrine. The unique capabilities that LRS units offer are clearly reflected in the emerging operational concepts and will play a critical role in the execution of future military operations and the achievement of full spectrum dominance.

Within the analysis of the literature review, the study will first identify the current LRS unit capabilities. Secondly, the study will address the future intelligence collection requirements expressed in the emerging operational concepts. Then the study will compare those requirements with current LRS capabilities. Finally, this analysis will identify supplementary missions for LRS units in concurrence with the emerging operational concepts.

Current LRS units have the capability to:

1. To be committed in specific locations within enemy-held territory by stay-behind methods or delivery by land, water, or air, to include parachute.
2. To operate in enemy-held territory for up to seven days with minimal external direction and support.
3. To conduct surveillance, reconnaissance, target acquisition, and battle damage assessment (BDA) missions in all types of terrain and environments.
4. To conduct operations in bad weather and over difficult terrain.
5. To be recovered by air, land, or water; to linkup with advancing force; or to return using evasion techniques.

6. To operate using planned, automatic resupply drops or special equipment cache sites set up by the LRS unit or other friendly forces. They also use captured supplies and equipment.

The literature review resulted in eight intelligence requirements in support of future military operations. Those requirements are:

1. Providing wide area, multispectral surveillance of the battlespace.
2. Aggregating and fusing bottom-up with top down feeds as low as brigade level.
3. Producing an “in-time” common relevant picture of battlefield visualization and situational awareness.
4. Accurately locating, identifying and tracking high payoff targets and conducting BDA.
5. Accessing, leveraging and interoperating with joint and multinational capabilities.
6. Conducting Command and Control Warfare (C2W) operations.
7. Providing support to force protection operations.
8. Assisting in friendly force tracking.

In comparing the current LRS unit capabilities to the future intelligence collection requirements there is a significant congruence. The four doctrinal missions for LRS teams are surveillance, reconnaissance, target acquisition and BDA. Those missions and capabilities need not change to play a role in the fulfillment of future intelligence collection requirements for *Joint* or *Army Vision 2010*. By maintaining those current capabilities, LRS teams can assist in fulfilling the first four items of the future intelligence requirements. In fact, the current capabilities of LRS units are not only nested within the first four requirements, but also have the capacity to fulfill additional intelligence needs.

The seventh requirement for the intelligence community is to provide support to force protection operations. LRS team members are trained to conduct stealthful surveillance operations on named areas of interest and to transmit timely and accurate information over a wide variety of communication devices. The surveillance and communication capabilities of LRS units can play a critical role in force protection and the prevention of terrorist attacks on US military buildings on foreign soil.

Additionally, LRS units can play a role in assisting friendly force tracking not only within the spectrum of their previously stated capabilities, but also under the umbrella of a dedicated, organic combat search and rescue (CSAR) organization for their supported unit. The infantry and ranger skills, fieldcraft, familiarity of LRS missions and operations, as well as the evasion and recovery (E&R) skills that a LRS unit possess, makes it a natural choice as an organic corps, division, or task force combat search and rescue (CSAR) organization.

Lastly, an analysis of the potential future threat to this country, its allies, and the Army outside the continental United States (OCONUS) requires unique intelligence collection organizations capable of operating in a nonlinear area of operation that is likely to include cities and towns. The execution of "full spectrum dominance" in large urban populations will pose a unique challenge to US Army forces responsible for defeating an identified opponent while minimizing friendly casualties and limiting collateral damage. For these reasons, the urban environment provides a natural form of asymmetry to key components of *Joint Vision 2010*. In heavily populated surrounding the adversary can negate US forces technological advantages. Precision engagement in civilian-rich

battlefield is extremely difficult and dangerous. Force protection in a city or town, which is not digitized, but is well known by the opponent, is difficult as well. The emergence of the asymmetrical threat and future urbanization of global populations portends a greater reliance on HUMINT and the capabilities LRS units currently possess.

Sample Population

The distribution of the questionnaire was limited to the key individuals in the field who are currently considered as LRS subject matter experts (SMEs). As stated previously, LRS personnel comprise only a fraction of the total active Army force structure--approximately 600 soldiers. Of this extremely small population, only 10 percent are in leadership positions. The intent was to gather data by distributing the questionnaire to the most experienced individuals in the field of LRS training and employment. Of the thirty questionnaires distributed, twenty-seven were returned (90 percent). The questionnaire was distributed to a wide range of individuals ranking from colonel to staff sergeant. Jobs held within the LRS community ranged from former and current Military Intelligence battalion commanders, former and current LRS unit commanders (to include three former commanders of the US Army's Long-Range Surveillance Leader's Course and a former senior LRS observer controller at the Joint Readiness Training Center), former LRS unit executive officers and platoon leaders, as well as former and current LRS unit first sergeants and team leaders. Every noncommissioned who participated in this survey is either currently, or has recently, been an instructor at the LRSLC. The sample population is portrayed in figure 10.

SAMPLE POPULATION

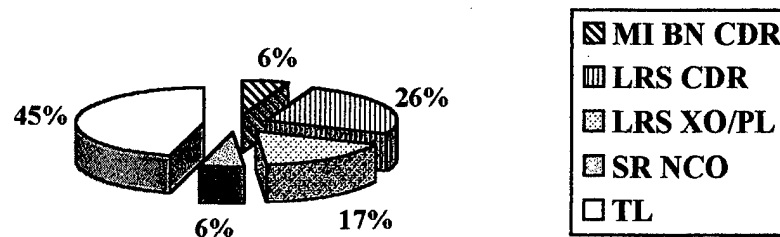


Figure 10.

Results of the Questionnaire

The questionnaire was split into four sections: LRS force structure, LRS organization, future roles and missions, and issues and perceptions. The object of the questionnaire was to garner a consensus among the SMEs on specific hypotheses developed by the researcher during the literature review. The SMEs were not informed of the hypotheses prior to being administered the questionnaire.

LRS Force Structure

The purpose of this section was to gain an understanding of the SME's concept of LRS support in today's Army. The SMEs were all aware that active component LRS units support only 50 percent of the active force. An overwhelming majority concurred that:

1. Heavy divisions require their own LRS units (93 percent).
2. A corps LRSC does not possess the organic capabilities to sufficiently support subordinate heavy division LRS missions (78 percent).

3. ARNG LRS units are not capable of maintaining the level of proficiency required in collective and individual tasks to support an active component corps or division (93 percent).
4. Every division and corps requires their own habitual LRS support (93 percent).

LRS Organization

The purpose of this section of the questionnaire was to gain an understanding of what the SMEs perceived was the correct organization and leadership for LRS units in light of JV 2010 concept of a modular, rapid deploying organization capable of integrating reserve component suborganizations. It addressed the structure of the current LRS organizations, number and size of LRS teams, and the command and control element of a LRS unit.

While the majority recognized that the requirement for a modular organization applied to LRS units (60 percent), the vast majority also agreed that ARNG elements could not be easily incorporated (90 percent). Additionally, while the majority perceived that the current structure of the LRSC and LRSD organization is correct (71 percent), it also recognized that should a slice of the unit deploy the stay behind element would be degraded in their ability to continue training. This finding is significantly higher for the LRSD (81 percent) than the LRSC (67 percent). The majority of the respondents also recognized that the current organization of LRS units does not possess the command and control and support elements required for rapid deployment (75 percent).

In answering questions concerning the proper size of a LRS team, the majority (67 percent) perceived the current size of teams (six men) was adequate to cover one named

area of interest (NAI) from two surveillance sites, but unanimously agreed the six-man team could not cover two separate NAIs simultaneously. The majority (75 percent) perceived that a nine-man LRS squad would be capable of covering two separate NAIs simultaneously. This is a significant finding because it infers that two NAIs could be covered with 50 percent less personnel. Equally significant is that 50 percent of the respondents perceived that the nine-man squad was the most effective size for a LRS small unit.

The last point of questioning in this section was addressing the fact that no individual above the rank of captain commands LRS units. Consequently, there is a lack of continuity and synchronization among LRS units in the active and reserve component. The majority (78 percent) agreed that the current command and control structure was inadequate and that there is a requirement for a centralized command and control structure above the company and detachment level to oversee LRS unit training in subordinate units. The findings from the questionnaire were inconclusive in respect to answering the question, who should be the chief of reconnaissance for a corps? While 82 percent perceived that someone needed to be designated, there was no consensus on whom, and 70 percent of the respondents perceived that one individual was incapable of performing those duties to subordinate divisions.

Future Roles and Missions

The purpose of this section of the questionnaire was to gain an understanding of what the respondents felt were the future roles and missions of LRS units in light of the emerging operational concepts of Joint and Army Vision 2010 and the future threat

analysis from the United States Army Intelligence Center and School (USAICS). An undeniable conclusion is that the respondents perceived that LRS capabilities portend a great reliance for future Army missions.

The respondents unanimously acknowledged LRS value in future intelligence collection and information operations (IO) with 90 percent concurring that LRS capabilities can play a key role in future MOOTW, SASO, and military operations in urban terrain (MOUT).

The section then discussed additional capabilities for LRS units. Respondents unanimously agreed that LRS units are capable of conducting other missions than reconnaissance, surveillance, target acquisition and battle damage assessment (BDA). Added capabilities identified included force protection (82 percent), combat search and rescue (CSAR) (82 percent), pathfinder (90 percent), having a wheeled reconnaissance capability (70 percent), and even to include sniper operations as a capability (56 percent).

Issues and Perceptions

The purpose of this section of the questionnaire was to gain an understanding of what the SMEs perceived were the key issues within the LRS community today. The basis for questions in this section was not derived from the literature review, but rather from the experiences of the researcher and resulting hypotheses. The questions in this section first addressed the name "Long-Range Surveillance" in an attempt to get a consensus whether the SMEs perceived that name was relevant for future intelligence collectors. The overwhelming majority (83 percent) perceived that LRS was a misnomer

and 67 percent agreed that Corps Reconnaissance Company or Division Reconnaissance Detachment better described future roles.

The next area the section addressed was LRS dual proponency and its perception of support from the military intelligence and infantry communities. Of the questionnaires returned, 93 percent of the respondents perceived that neither proponent adequately supports LRS units, and 85 percent perceived that the dual proponency is not working and that Fort Benning should be the sole proponent of LRS. Additionally, 75 percent of the respondents perceived that LRS units should be moved out of military intelligence table of organization and equipment (TO&E) in order to protect them from future inactivations.

The questionnaire then addressed the degree to which the SMEs perceived LRS units are being supported and utilized in the field. An overwhelming 93 percent of the respondents perceived that LRS units were not adequately manned, equipped, resourced and supported; and unanimously concurred that General officer emphasis directly impacts the level of support a LRS unit receives. The questionnaire then confirmed a perception (93 percent agreed) that light and airborne organizations better utilize and have a more positive understanding of LRS assets than mechanized and armor units.

And finally, the questionnaire concluded by attempting to garner a consensus from the SMEs on requirements for LRS mission preparation. Half of the respondents perceived that the amount of time LRS teams require in isolation preparing for a mission precludes them from missions that demand immediate information from a HUMINT

source, and 63 percent perceived that teams could safely prepare in a compressed timeline from what they currently operate.

Common Trends Between the Hypotheses and Questionnaire

The literature review resulted in the development of five hypotheses concerning LRS organizations and capabilities.

1. The current LRS force structure and organizations do not adequately support a force projection Army that must be prepared to contend with future military operations other than war (MOOTW), stability and support operations (SASO) as well as the threat of conducting operations in two near simultaneous major theater wars (MTWs).
2. There is a requirement for a centralized command and control element for LRS units above the company and detachment level that would be responsible for the individual and collective training in order to ensure a level of synergy exists between subordinate units and the higher headquarters employing LRS assets.
3. The emergence of the asymmetrical threat and future urbanization of global populations portend a greater reliance on HUMINT and the capabilities of LRS units.
4. LRS units are capable of accomplishing additional missions besides reconnaissance, surveillance, target acquisition and battle damage assessment (BDA). Specifically, the surveillance and communication capabilities of LRS units can play a critical role in force protection and the prevention of terrorist attacks on US military buildings on foreign soil. Other possible missions include combat search and rescue (CSAR) and pathfinder operations.

5. The name Long-Range Surveillance is no longer relevant in the distributed battlefield.

While the requirement for deep reconnaissance is still valid, the most likely employment of these intelligence collectors will be within a much closer range than previously required. This would make the phrase "long-range" a misnomer.

Additionally, the term surveillance is linked more to a SIGINT or IMINT platform than to HUMINT. While passive observation of a NAIs, TAIs or specific areas are some of the primary jobs for these intelligence collectors; the term reconnaissance more aptly describes a human collector as opposed to a platform.

The method to test these hypotheses was to compare them with the responses generated by the questionnaire administered to a sample population of LRS subject matter experts. The comparison overwhelmingly supports each of the hypotheses generated from the literature review.

Over 90 percent of the respondents concurred that the current LRS force structure and organizations do not adequately support the force projection Army required to accomplish the emerging operational concepts of Army Vision 2010. The same percentage concurred that each division and corps requires their own habitual LRS support and that an ARNG LRS unit is incapable of maintaining the level of proficiency required to provide that support.

The second hypothesis was supported when 78 percent of the respondents concurred that there is a requirement for a centralized command and control element for LRS units above the company and detachment level. This headquarters would be

responsible for the individual and collective training to ensure a level of continuity exists between subordinate units and the higher headquarters employing LRS assets.

The third and fourth hypotheses were supported by the responses to the questionnaire by unanimously acknowledging LRS value and relevance in future intelligence collection and Information Operations (IO). Over 90 percent concurred that LRS capabilities can play a key role in future MOOTW, SASO, and MOUT operations. Additionally, respondents unanimously agreed that LRS units are capable of conducting other missions than reconnaissance, surveillance, target acquisition and BDA. The overwhelming consensus for added capabilities were in the areas of force protection (82 percent), CSAR (82 percent) and pathfinder operations (90 percent). Additionally 70 percent perceived that LRS units should have a wheeled reconnaissance capability.

The fifth and final hypotheses was supported when over 83 percent of the respondents concurred that the name Long-Range Surveillance does not properly describe the future role and missions of these HUMINT collectors in the distributed battlefield. The term reconnaissance more aptly describes a human collector as opposed to the term surveillance which is more likely perceived as a platform. Of the respondents, 67 percent felt that Corps Reconnaissance Company and Division Reconnaissance Detachment was the proper name for these units.

Criteria

In this final section of the analysis, a set of criteria has been established based on the common trends between the hypotheses developed from the literature review and results of the questionnaire. This set of criteria below will be used through the remainder

of the research to answer the remaining subordinate questions and provide an answer to the primary research question.

1. A continental United States (CONUS) based, modular, multicomponent organization capable of rapid worldwide deployment.
2. A unit capable of conducting precision engagement operations which will locate the objective or target, provide responsive command and control, generate the desired effect, assess the level of success, and retain the flexibility to reengage with precision when required.
3. A unit with the capability to provide force protection throughout the spectrum of the distributed battlefield by providing early warning, counter reconnaissance, surveillance and intelligence.
4. A unit with the capability to shape the battlespace by providing "real time" information to a headquarters that can be disseminated among all units, allies, and coalition partners operating in the area. This process will be accomplished by effectively exploiting information age technologies that permit isolating, tagging, and tracking of the most fleeting enemy forces and targets.
5. A unit with the capabilities to provide intelligence support for information operations (IO) by providing detailed tracking of key adversary leaders and comprehensive information on selected facilities and systems.
6. A unit with the capabilities to habitually provide a dedicated and trained pathfinder and combat search and rescue element to a supported higher Army or Joint command.

7. A unit with the capabilities to provide an organic mobile (wheeled) reconnaissance asset to a supported higher Army or Joint command.

The development of these criteria has also provided an answer to the third and fourth subordinate research questions. The third subordinate question was, under the current organization, is a LRS unit adequately manned and equipped to execute these potential missions? The answer to this question is no. While a current LRSD or LRSC are capable of accomplishing many of the missions described in the criteria, they do not have the proper equipment on their TO&Es to execute them. Additionally, under the current force structure LRS units are not multicomponent, and every division and corps does not possess LRS capabilities, so the current LRS force structure prevents the accomplishment of these missions for 50 percent of the Army.

The final subordinate question is partially answered within the first criteria. Within the current force structure and in light of the intelligence collection requirements, what is the correct organizational structure for future LRS units? It is recommendation of this researcher to reorganize all LRS units, both AC and ARNG, under two multicomponent Corps Reconnaissance Battalions organic to the Military Intelligence Brigades of the two contingency corps. Each Corps Reconnaissance Battalion (CRB) would be comprised of an AC headquarters company, a ARNG Reconnaissance Support Company, and both AC and ARNG Reconnaissance Detachments (RDs) which would provide dedicated reconnaissance support to every active duty division and corps in the Army.

As a result of the answers to the four subordinate questions, the answer to the primary research question of does the current organization and force structure for LRS

units meet the intelligence collection requirements expressed in the emerging operational concepts addressed in *Joint Vision 2010* is no. In the next chapter, the major findings, implications, and recommendations for the force structure, organization, and capabilities of future LRS units will be explored in greater detail.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Commanders in Force XXI Decisive Operations will require the capability to “see” their battlespace in depth, to provide a shared common relevant picture of the situation, to precisely locate and track critical targets, to conduct simultaneous attacks with lethal and non-lethal means, to operate with joint and multi-national forces, and to track and protect their own forces. The Intelligence Force of the 21st century, INTEL XXI, must be designed, equipped and trained to meet these demanding requirements. It must be a thoroughly integrated force--national to tactical, AC and RC-- capable of supporting multi-dimensional, simultaneous, dispersed operations. (TRADOC Pamphlet 525-XX 1996, 2-3)

Conclusions

The analysis concluded that current organization and force structure for LRS units will not meet the intelligence collection requirements expressed in the emerging operational concepts addressed in Joint Vision 2010. The literature review and the analysis resulted in the determination that in order to achieve the full spectrum dominance that is required to execute the operational concepts described in *Joint Vision 2010*, the Army must possess a variety of intelligence collection assets. The excerpt from TRADOC Pamphlet 525-XX at the beginning of the chapter delineates many of the requirements for intelligence assets. Technology gives the US many advantages, but can never entirely take the place of a human being. This is especially true in an environment where the US technological capabilities do not present an advantage, as in a third-world urban environment or in an environment of limited visibility due to poor weather or heavy vegetation. Human intelligence is still the most reliable form of intelligence collection and can play either the primary role or a secondary role employed to confirm, refute, or augment electronic or imagery intelligence systems in future operations.

As identified in the literature review and in the analysis, the requirements for LRS assets are firmly nested in current Army doctrine, and LRS capabilities and missions are clearly identified within the emerging operational concepts. Yet, within the last eight years LRS units have quietly left the active force resulting in only 50 percent of the current divisions and corps having organic LRS units. The decision to inactivate these intelligence collection units was obviously not based on a change of doctrine--it was monetary. The decision was not made by one of the two proponents of LRS in order to protect another unit or asset. Quite the contrary, both proponents recognize the importance of HUMINT on the battlefield and support LRS employment and training. As discussed in chapter two, the decision to inactivate all heavy division LRSDs and two of four LRSCs was made, over the objection of both proponents and units, by the office of the Deputy Chief of Staff for Operations (DCSOPS) as a result of the TAA process. Consequently, under the current force structure, there are not adequate numbers of LRS units to effectively execute the potential future missions the Army will face.

The primary reason the two LRSCs were inactivated was due to the fact that they were organic to a Military Intelligence Tactical Exploitation Battalion (TEB). Military intelligence units have taken the lion's share of the inactivation since the drawdown began. The TAA process has attempted to reduce mission redundancy in combat support (CS) and combat service support (CSS) units between the AC and Reserve Component (RC), including the ARNG. Consequently, the ARNG has accepted the entire military intelligence TEB mission for I Corps and III Corps--to include the LRS mission. The heavy divisions under every corps are required to ask for LRS support from their parent corps, regardless of whether that unit is AC or ARNG. Additionally, LRSCs are not

organized or structured by their table of organization and equipment (TO&E) to allow for a liaison (LNO) team and command, control, communications, computers, and intelligence (C4I) cell to provide support for the subordinate divisions in a corps.

Clearly, the current force structure and organization are not providing adequate, or any, LRS support required to half the units in the Army. The recent technology intelligence assets that have been fielded since the end of Desert Storm were not designed and cannot replace, the soldier. No machine has yet to replace the soldier. He is the most valuable thinking, reasoning, reactive intelligence asset, which can see through fog, smoke, rain, snow, vegetation, from building to building, and render a timely and accurate report. This has become even more of a factor in light of the analysis of the future threat and the global urbanization that is taking place that has the potential to impair or neutralize the technological advantages that the US currently enjoys.

If the current LRS organization and force structure does not meet the future intelligence collection requirements, then what is the correct one? The result of the analysis conducted in chapter four was the establishment of seven criteria a future LRS organization and force structure would have to meet.

1. A continental United States (CONUS) based, modular, multicomponent organization capable of rapid worldwide deployment.
2. A unit capable of conducting precision engagement operations which will locate the objective or target, provide responsive command and control, generate the desired effect, assess the level of success, and retain the flexibility to reengage with precision when required.

3. A unit with the capability to provide force protection throughout the spectrum of the distributed battlefield by providing early warning, counter reconnaissance, surveillance and intelligence.
4. A unit with the capability to shape the battlespace by providing real time information to a headquarters that can be disseminated among all units, allies, and coalition partners operating in the area. This process will be accomplished by effectively exploiting information age technologies that permit isolating, tagging, and tracking of the most fleeting enemy forces and targets.
5. A unit with the capabilities to provide intelligence support for information operations (IO) by providing detailed tracking of key adversary leaders and comprehensive information on selected facilities and systems.
6. A unit with the capabilities to habitually provide a dedicated and trained pathfinder and combat search and rescue element to a supported higher Army or Joint command.
7. A unit with the capabilities to provide an organic mobile (wheeled) reconnaissance asset to a supported higher Army or Joint command.

The criteria listed above will provide the framework for this study's recommended organization and force structure for future reconnaissance units.

Implications

What are the implications if the LRS organization and force structure remain the same? If one can draw a conclusion from recent history, LRS units will eventually leave the AC and ARNG units will absorb the mission for the entire Army. How will that affect the Army? The ARNG lack the organization, technical knowledge and resources to train and sustain a LRS force capable of supporting AC divisions and corps. There

will be a tactical reconnaissance vacuum Army-wide from the corps down to the brigade that technology will not be able to fill. History will repeat itself, and in a time of need, as in World War II, Korea, and Vietnam, commanders will form HUMINT reconnaissance units from within their own ranks. To ignore that the issue exists ultimately jeopardizes the Army's most precious asset--the individual soldier. Because without proper reconnaissance, without timely and accurate intelligence, a commander cannot avoid the enemy's strengths and exploit his weaknesses in order to defeat him at a minimum cost to his own soldiers.

The following section discusses this study's recommendation based the current AC force structure, and the reconnaissance requirements for future military operations.

Recommendations

Force Structure

All LRS companys and detachments should be removed from the military intelligence battalions at corps and division and reorganize under III Corps and XVIII Airborne Corps as the two contingency corps reconnaissance battalions (CRBs). The two CRBs would be organic to their respective corps military intelligence (MI) brigade.

Why Change the Organization to a Battalion?

Quite simply, the current organization is not working and cannot support the future reconnaissance requirements for the entire Army. There are not enough units to go around. Restructuring the current organization and force structure to two multicomponent battalions would be beneficial to the Army for the following reasons:

1. It would provide a dedicated Reconnaissance Detachment (RDs) for every division and two dedicated RDs for each corps.

2. It would provide a battalion commander and staff that would centralize training and METL development for each CRB element (AC and ARNG) within a corps.
3. It would provide a trained staff that will assist the corps and subordinate division staffs in the capabilities, planning, and employment of RD squads.
4. The battalion commander of the CRB would also act as the corps Chief of Reconnaissance. He and his staff would be responsible to synchronize and coordinate the corps reconnaissance plan.
5. It would create an organization capable of attaching a modular, tailorable, interchangeable Reconnaissance Task Force (RTF) to deploying divisions or JTF/ Brigade Combat Team Force Projection packages as required. A RTF would consist of a RD and a command, control, communications, computers and intelligence (C4I) cell from the CRB.
6. It would provide a multicomponent organization capable of quickly integrating an activated ARNG organic unit into real-world or training operations. Additionally, the CRB would ensure the organic ARNG units are trained to the same standard as organic AC units.
7. It would create an organization that could easily incorporate additional RDs should the force structure expand in the future.
8. It would create two additional infantry battalions within the existing force structure, which would create additional leadership position at the officer and noncommissioned officer level.

Why Place the CRB under the MI Brigade?

Where the CRB should be placed within a corps is an interesting question. The results of the questionnaire suggested three possibilities. The first recommendation is put the CRB a separate infantry battalion under the corps headquarters. The CRB would work directly for the corps commander and have a direct link to the corps operations officer and staff (G3). In essence being a true maneuver element, essentially divorcing itself from the intelligence staff. This concept has merit, but also has its flaws. Its merit is that it would have a direct link to the only staff officer with tasking authority in the corps--the G3. The insertion of any reconnaissance asset requires coordination and resources that only the G3 can task to subordinate units within the corps. A few of the examples being providing aviation support for insertion and exfiltration, suppression of enemy air defense (SEAD), and establishing no-fire areas (NFAs). This cuts out the time consuming process of going through a unit's chain of command to the corps intelligence officer (G2) to the G3. The negative aspect of this concept is that by separating itself from the intelligence community the CRBs impact on intelligence collection would be limited because there would be no organic link to the other intelligence collection assets in the field. The infantrymen on the ground in a reconnaissance squad should be treated as a maneuver element and afforded the resources to ensure survival on the battlefield and mission success, but their whole purpose for being on the battlefield is to provide intelligence collection. Whatever role this unit has, it should not be removed from the intelligence community completely.

The second recommendation is placement of the CRB within the corps aviation brigade. Again, this concept has merit. Originally, all LRSDs were organic to the

division cavalry squadrons. LRSDs were moved to the division MI battalions when the USAICS and the USAIS became dual proponents for LRS. Advantages to this concept would be that the CRB would have habitual aviation support within their own brigade. One of the major problems within the LRS community today is habitual aviation support that has LRS infiltration, extraction, and exfiltration on their METL. Doctrinal methods of infiltration include the fast rope insertion and extraction system (FRIES), and exfiltration include the special patrol insertion and extraction system (SPIES). These methods require special certification for the pilot and crew of the aircraft. If a specified aviation unit does not have LRS-type missions on their METL, there is no justification to spend increasingly shrinking training time, dollars, and maintenance to qualify or sustain crew proficiency in these high-risk missions.

The primary disadvantage for this concept is the same as the first recommendation. This would create gap between the CRB and the G2, undermining their primary role as intelligence collectors.

The third recommendation is to establish a separate infantry battalion and attach it to the corps MI brigade. This appears to be the best solution for a number of reasons.

1. It would not change the dual proponent relationship between the USAICS and the USAIS. It needs to stay where it is because of the nature of the organization--an intelligence collection unit that must possess the knowledge and skills found in the light infantry and ranger community. Though a high percentage of the SMEs surveyed in the questionnaire perceived that the two schools were not doing enough for LRS, perception is not necessarily the truth. Both schools unsuccessfully

attempted to prevent the unit inactivations and are seeking solutions to prevent future inactivations.

2. It maintains the close relationship with the other MI organizations within the corps.
3. It puts a technically and tactically proficient, DA select, infantry lieutenant colonel battalion commander on equal footing with the MI battalion commanders to ensure the proper horizontal integration exists among all the assets within the brigade.
4. Additionally, by being a separate battalion attached to the MI brigade, the CRB would not be required to have the same Authorized Level of Organization (ALO) and DA Master Priority List (DAMPL) as their higher headquarters. The ALO and DAMPL are two tools that direct the priority that a unit has for personnel, equipment, repair parts, and their deployment sequence. Because they are combat support (CS), MI units traditionally have the lowest ALO and DAMPL within their respective division or corps. It is a considerable problem with LRS units today that is, usually, only overcome by general officer involvement within the assigned division or corps. As a separate battalion attached to the MI brigade, the CRB could have the highest ALO and DAMPL that the corps is authorized.

How Will Two CRBs Support the Entire Army?

The number of personnel within the current LRS force structure does not support every division and corps having a dedicated active component (AC) RD. Additionally, one RD, capable of conducting reconnaissance of eight named areas of interest (NAIs), would not provide adequate support for a corps in the event of a major conflict or training exercise. In that event, ARNG RDs organic to the CRB would be activated to support a

corps-sized combat operation in order to ensure both the corps and all subordinate divisions have RD assets.

The current LRS AC force structure could support ten RDs and two headquarters companies under two CRBs. In order to align as many AC RDs with AC divisions, one CRB would provide support to two corps. One CRB could provide support to XVIII Airborne Corps and V Corps, the other provide support to I Corps and III Corps. A recommendation would be for the CRB that supports XVIII Airborne Corps and V Corps to have six AC RDs and one ARNG RD since there are six divisions between those two corps. The CRB that supports III Corps and I Corps could have four AC RDs and three ARNG RDs. Whatever the mix of RDs between the two battalions, the total AC force structure would remain the same. Since the current force structure cannot support each division and corps having organic RDs, an analysis would need to be done to determine which units should have AC RDs in accordance with their potential to be used in possible conflicts. While a habitual relationship between a specific RD and supporting corps or division would be the desired endstate, any RD would be available to be employed by the corps (in the event one RD is not sufficient to cover the required corps NAIs or TAIs) or division that requires support. Additionally, there are current LRS units that are stationed overseas in Germany, Korea and Hawaii. This would not change under the CRB concept. While the controlling headquarters would remain CONUS based, some RTFs may be require to be forward deployed to support those divisions.

Corps Reconnaissance Battalion Mission Statement

The CRB will provide timely and accurate tactical intelligence through the rapid deployment of a tailorable reconnaissance task force capable of conducting reconnaissance and surveillance operations, as well as target acquisition, battle damage

assessment, force protection, pathfinder, and CSAR functions for the brigade through corps areas of operations and interest.

Corps Reconnaissance Battalion Characteristics

The CRB is a highly mobile, flexible, multiple role addition to the Army's war fighting capabilities. The CRB will provide commanders at the brigade through corps a dedicated all weather, HUMINT collection asset capable of reconnaissance, surveillance, pathfinder, target acquisition, battle damage assessment, force protection, and CSAR operations. The CRB will enable commanders access to real-time intelligence to the depth of their area of interest beyond what is currently provided by battalion scouts, division cavalry squadrons, unmanned aerial vehicles (UAVs) or the joint surveillance target attack radar system (J-STARS). Additionally, the CRB will bridge the gap between current tactical and strategic reconnaissance assets, providing timely and accurate intelligence during periods of adverse weather conditions prohibiting the use of aerial platforms.

Corps Reconnaissance Battalion Capabilities

The CRB will provide the corps commander a dedicated chief of reconnaissance and staff experienced in the employment and capabilities of reconnaissance units. Additionally the CRB will provide a centralized headquarters for training and METL development for all Reconnaissance Detachments (RDs) within the corps. The organization, strength, and equipment of RDs and Reconnaissance Squads are based on the mission and the environment of the operational area. CRB elements will have the capability to:

1. Be committed in specific locations within enemy-held territory by stay-behind methods or delivery by land (wheeled vehicle or foot), water, or air (static-line or HALO parachute).
2. Conduct reconnaissance and surveillance operations in enemy-held territory for up to seven days with minimal external direction and support in all types of terrain and environments.
3. Conduct target acquisition and battle damage assessment missions by observation, lasing precision guided munitions, beacon bombing, artillery, and close air support (CAS).
4. Provide a dedicated combat search and rescue (CSAR) asset to brigade through corps commander including search and security teams (SST), casualty treatment and evacuation, and pathfinder operations.
5. Conduct pathfinder operations in support of CSAR and battalion or higher rotary-winged missions to include reconnaissance, survey and establishment of landing zones, pick-up zones, drop zones, and the conduct of sling-load operations.
6. Provide force protection throughout the spectrum of the distributed battlefield for a supported unit by providing early warning, counter reconnaissance, surveillance and intelligence.
7. Employ sniper capabilities in support of force protection for CSAR, target acquisition, and reconnaissance and surveillance operations.
8. Operate in modular elements capable of supporting a force projection package of brigade size or larger with a RD with C4I capabilities specially tailored to the mission of the JTF.

9. Operate at the squad level with up to two three-man reconnaissance and surveillance (R&S) teams as well as a command, control and communications (C3) element.
10. Provide an organic mobile (wheeled) reconnaissance asset to a supported higher command.
11. Establish long-range communications using HF, VHF, UHF, or SATCOM between the base stations, the controlling headquarters, and reconnaissance squads directly or through airborne relay.
12. Be recovered by air, land, or water; linkup with advancing forces; or to return using evasion techniques.
13. Operate using planned, automatic resupply drops or special equipment cache sites set up by the RD or other friendly forces.

Corps Reconnaissance Battalion Limitations

CRB elements would be limited by the following considerations:

1. Mobility is restricted to foot movement in the area of operations.
2. Reconnaissance Squads cannot maintain continuous communication with the controlling headquarters because of equipment limitations and the enemy's use of radio and electronic surveillance devices. Squads only establish communications at scheduled times or to report critical combat information.
3. Area communication integration and access to a common-user telephone system.
4. Army or Air Force air transportation to move the unit to the area of operations.

Organization

The CRB would consist of a Headquarters Company (active-component), one Reconnaissance Support Company (ARNG) and seven RDs (four or five AC, two or

three ARNG), a combined active and reserve component total of approximately 500 personnel (300 AC, 200 ARNG). Figure 11 depicts a wire diagram of a generic CRB.

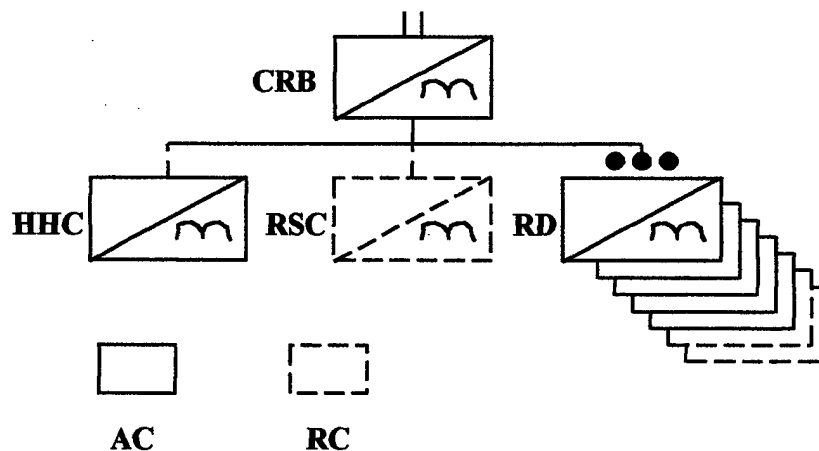


Figure 11. Generic CRB

The Headquarters Company would consist of approximately seventy AC personnel and would provide the framework for the organization that will incorporate the Reconnaissance Support Company (RSC) upon its activation. The company would provide command and control as well as all essential administrative and logistical support to the RDs. Additionally, HHC would provide personnel from its operations, intelligence, communications and medical sections to augment a RD once a RTF is required. Figure 12 depicts a Headquarters Company of a CRB.

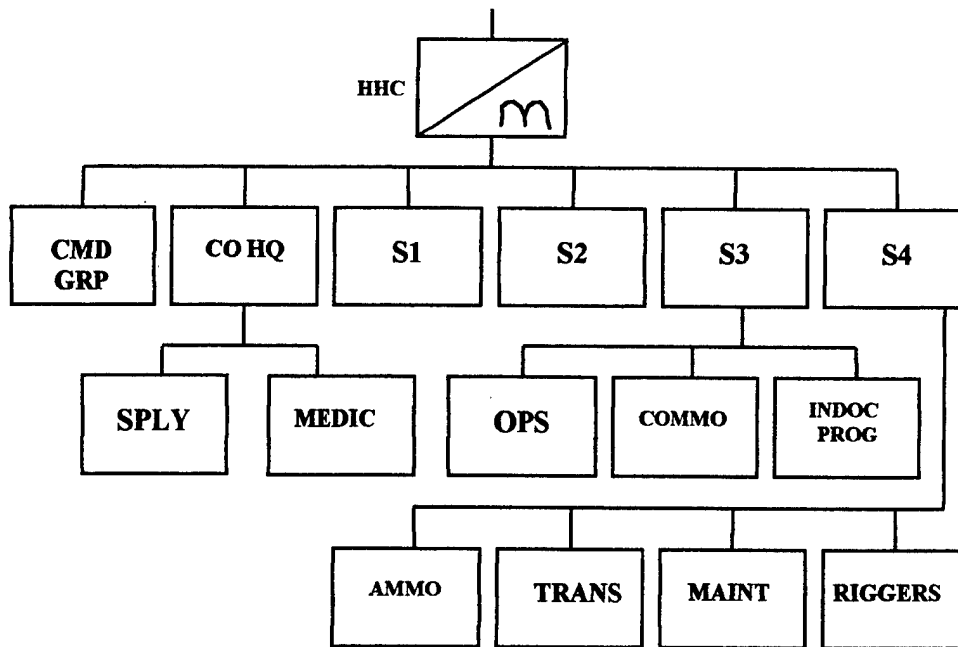


Figure 12. Corps Reconnaissance HHC

The Reconnaissance Support Company (RSC) is a robust (approximately 200 individuals) ARNG organization organic to an AC CRB. All officers and noncommissioned officers in the RSC are under the CRB for METL development and all administrative actions with the exception of pay, which will be provided by the unit's state. Its primary function is to augment the headquarters company of the parent CRB in the event of activation. Its secondary function is to provide training, logistical, and personnel support to the ARNG RDs that are also organic to a CRB. During the unit's annual training or in the event of activation, the RSC will be incorporated by the CRB HHC. The RSC is depicted in figure 13.

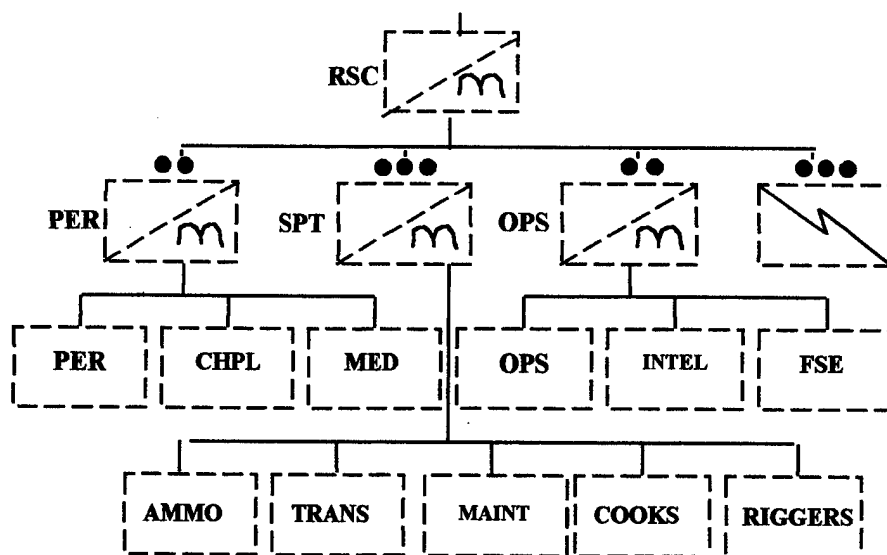


Figure 13. Reconnaissance Support Company

The Reconnaissance Detachments will be both AC and ARNG. Regardless of the component, an RD will consist of a command and control element (commander, executive officer, detachment sergeant, operations sergeant, fire support sergeant and supply sergeant), four nine-man reconnaissance squads and one four-man communications section for a total of forty-six personnel. The RD is depicted in figure 14.

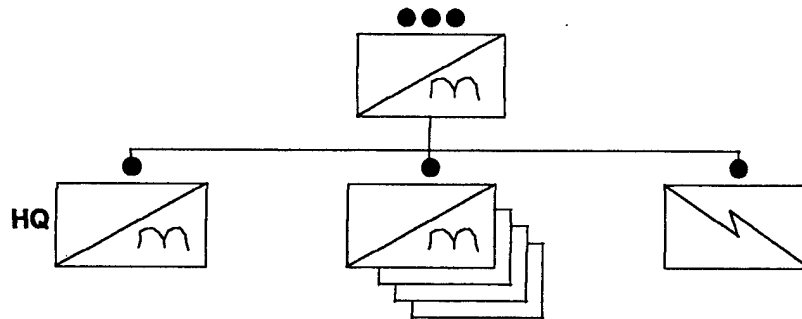


Figure 14. Reconnaissance Detachment

The Reconnaissance Squad is the heart and sole of the organization. It is comprised of nine men. Led by a ranger-qualified staff sergeant and two ranger-qualified sergeant team leaders. Additionally, each reconnaissance squad will have a military occupational skill (MOS) qualified fire support forward observer. The remainder of the squad is comprised of scout observers and radio telephone operators. This nine-man element is capable of providing reconnaissance support over two named areas of interest (NAIs) or target areas of interest (TAIs) simultaneously and stay in direct communications with its higher headquarters. The Reconnaissance Squad is depicted in figure 15.

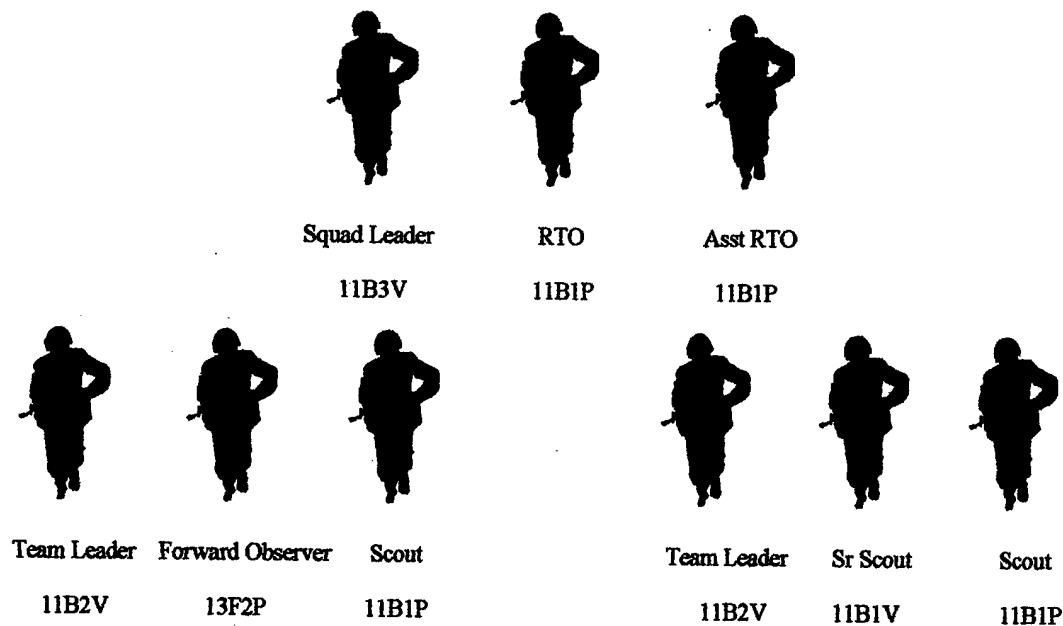


Figure 15. Reconnaissance Squad

LRS Units Versus the CRB

The CRB concept encompasses all of the capabilities and missions of the present LRS organizations. Additionally, it overcomes many of the limitations of current LRS units. Figures 16 through 23 compares, by the Battle Operating System (BOS), the limitations of LRS units to the advantages of the CRB.

| MANEUVER | |
|---|--|
| LRSU Limitations | CRB Advantages |
| A six-man team restricts ability to cover more than one area of interest. | A nine-man squad affords the opportunity cover two areas of interest with one squad, or to maintain surveillance on an objective and conduct a simultaneous active reconnaissance. |
| A six-man team restricts the ability to conduct a zone reconnaissance. | A nine-man squad provides the capability to conduct a doctrinal zone reconnaissance by three sub-units using successive sectors, converging routes, or the fan methods. |

Figure 16. Comparison of LRSU versus CRB by Maneuver

| FIRES | |
|--|---|
| LRSU Limitations | CRB Advantages |
| No MOS qualified fire support personnel organic to any LRS element. | MOS qualified fire support personnel will be organic at every level from battalion down to squad. |
| Though a doctrinal mission, LRS team members are rarely trained or equipped to conduct target acquisition missions besides calling for and adjusting indirect fires. | A TACP will be attached at the battalion and, mission dependent, will be attached to sub-elements for lase, beacon bombing, CAS control during target acquisition missions and for force protection during CSAR operations. |

Figure 17. Comparison of LRSU versus CRB by Fires

| INFORMATION OPERATIONS | |
|---|---|
| LRSU Limitations | CRB Advantages |
| A six-man LRS team will have half the impact on IO than a nine-man element. | With the addition of trained target acquisition personnel a Reconnaissance Squad can destroy targets in depth and deceive the enemy as to the shape and location of friendly forces. Additionally, the squad is capable of providing intelligence support for information operations (IO) by providing detailed tracking of key adversary leaders and comprehensive information on selected facilities and systems. |

Figure 18. Comparison of LRSU versus CRB by Information Operations

| RECONNAISSANCE, SURVEILLANCE AND INTELLIGENCE | |
|--|--|
| LRSU Limitations | CRB Advantages |
| The present LRS structure does not provide tactical reconnaissance down to the brigade level. | The CRB has the capability to provide a tactical reconnaissance element down to the brigade level. |
| The present LRS structure does not provide a tactical reconnaissance element with every division in the force structure. | The CRB will provide a dedicated RD for tactical reconnaissance for every division in the force structure. |

Figure 19. Comparison of LRSU versus CRB by Reconnaissance, Surveillance and Intelligence

| MOBILITY AND SURVIVABILITY | |
|--|---|
| LRSU Limitations | CRB Advantages |
| Teams are lightly armed and have limited self-defense capabilities. They fight only to break contact. | Squad strength and increased firepower will improve survivability. |
| Present LRS structure does not provide any of the resources to conduct CSAR, pathfinder or to protect the force from enemy action. | The CRB has a Strike Force capability of conducting CSAR, pathfinder and force protection operations. |

Figure 20. Comparison of LRSU versus CRB by Mobility and Suvivability

| AIR DEFENSE | |
|--|--------------------------------------|
| LRSU Limitations | CRB Advantages |
| Present LRS structure has no organic ADA capability. | The RD will provides organic SHORAD. |

Figure 21. Comparison of LRSU versus CRB by Air Defense

| COMMAND AND CONTROL | |
|--|---|
| LRSU Limitations | CRB Advantages |
| Present LRS organization possesses no permanent command and staff structure above the detachment or company level. | The CRB will provide a battalion commander and staff to centralize training and METL development for each CRB element (AC and ARNG) within a Corps. |
| Present LRS units are not modular and do not possess the resources or manpower to operate in more than one C4I cell. | The CRB possesses the flexibility to provides C4I cells from the Corps down to a Brigade Battle Task Force. |

Figure 22. Comparison of LRSU versus CRB by Command and Control

| COMBAT SERVICE SUPPORT | |
|---|--|
| LRSU Limitations | CRB Advantages |
| Organic medical capability is limited to individual first aid. | A medical section with PA will be at the battalion level. |
| Present LRS organization has no logistics or personnel service support above the detachment or company level. | The CRB will possess organic CSS to man, arm, fuel, fix, sustain soldiers and their systems. Provide personnel service, combat health field service, rigger, and general supply support. |

Figure 23. Comparison of LRSU versus CRB by Combat Service Support

Closing

While this study's recommendation may not be found to be the perfect solution to the problem of the organization and force structure of the reconnaissance unit of the future, it is a viable one that addresses and answers the current issues.

The implications of maintaining the status quo were previously discussed in this chapter. Regardless if the prediction of LRS leaving the AC proves false and units remain where they are today, the current force structure and organization for LRS assets are inadequate and cannot support the future reconnaissance requirements. The simplest course of action to fix the problem would be to double the LRS force structure to ensure that every division and corps has the proper assets. While this course of action is suitable and distinguishable from the status quo, it is neither feasible nor acceptable at this time to the powers that determine the overall force structure. It is the opinion of the researcher that the advantages of the resulting recommendation of this study far outweigh the disadvantages.

The numerous benefits of this recommendation have been discussed previously in this chapter. But there are a few key advantages that this recommendation has over the current organization that has the potential to benefit the entire Army. First and foremost, it provides a solution to the problem that half of the divisions in the Army currently face--no dedicated LRS assets. Secondly, it creates an organization where the leadership is far more experienced and structure is more adaptable and tailorable to potential missions. Lastly, the recommendation creates a model of a multicomponent organization where an ARNG subordinate unit's collective tasks, and METL are directed and assessed by an AC

higher headquarters, thus ensuring a level of continuity and standardization between the AC and ARNG.

Recommendation For Additional Research

Additional research is needed in several areas that relate to this study specifically and to LRS operations in general. A study could be conducted which would tests the reconnaissance battalion concept and its ability to form and deploy a reconnaissance task force as part of a joint task force operation. Key to this analysis would be a survey administered to assistant division and division commander's to gain their insight and opinions on the requirements and employment of these reconnaissance assets. Also, how could this concept be incorporated into the Strike Force organization?

Additionally, a study needs to be conducted that would research how the rating system would work when an AC higher headquarters rates and senior rates subordinate ARNG soldiers.

Finally, a study could be conducted in the area of long-range surveillance concentrating on the remainder of the DTLOMS (doctrine, training, leaders, organization, material and soldiers) acronym that was not addressed in this research (training, leaders, material, soldier) warrant further examination. How are LRS units trained? How do the Combat Training Centers (CTCs) use LRS units? What is the proper way to employ LRS units during training or at CTCs? How are LRS leaders trained at the team through company level? How is the military intelligence leadership trained to employ LRS assets? How is Army leadership in division and corps staffs trained to employ LRS units? What is correct equipment that should be on LRS unit TO&Es? How is the individual LRS soldier selected and trained? Each of these areas require study in order to

ensure that all aspects of LRS and reconnaissance operations are in line with the most current information, techniques, and equipment available to ensure that this valuable intelligence collection asset moves forward with *Army Vision 2010* to the Army After Next.

APPENDIX

QUESTIONNAIRE

Masters of Military Art and Science (MMAS) Survey

Notes: Thank you for your assistance with my MMAS. As LRS subject matter experts, your opinions and thoughts are valuable in my research.

Statements listed under the heading of "FACT" are a result of information derived for analysis from the literature review of Long Range Surveillance related material, emerging military operational concepts, and future threat analysis.

SECTION I – FORCE STRUCTURE

FACT: The literature review revealed the original LRS force structure was designed for each corps and division to have an organic company or detachment, respectively. Though, through the drawdown and TAA process, LRS units have inactivated at a higher rate than the rest of the Army. Today only 50% of the corps and division have organic LRS units. None of the heavy divisions have organic LRSDs and ARNG LRSCs supports two Army corps.

Please circle A, B, or C prior to answering the questions.

- A. I do not question this FACT and will continue the questions in this section.
- B. I question the validity of this FACT, but will continue the questions in this section.
- C. I question the validity of this FACT, and do not wish to continue the questions in this section.

Please circle "a" or "b".

1. Heavy Divisions do not require LRSDs because of the speed of the mechanized battle.
 - a. Agree
 - b. Disagree
2. Active Component supporting Corps LRSCs have the organic capabilities to sufficiently support heavy division LRS missions if they are required.
 - a. Agree
 - b. Disagree
3. ARNG LRS unit are capable of maintaining the level of proficiency required in their LRS collective tasks and individual skills to support an active component corps or division.
 - a. Agree
 - b. Disagree
4. In your opinion, is there a requirement to ensure that every division and corps in the active Army have a supporting LRS unit identified that would provide habitual support for that higher units LRS requirements?
 - a. Yes
 - b. No

SECTION II – LRS ORGANIZATION

FACT: IAW JV 2010 and Army Vision 2010, future organizations must be CONUS-based, modular organizations capable of rapid deployment. Additionally, these organizations must be capable of quickly integrating reserve component organizations to augment the active force.

Please circle A, B, or C prior to answering the questions.

- A. I concur with this FACT and will continue the questions in this section.
- B. I do not concur with this FACT, but will continue the questions in this section.
- C. I do not concur with this FACT, and do not wish to continue the questions in this section.

Please circle “a” or “b”.

- 5. This finding does not apply to LRS units.
 - a. Agree
 - b. Disagree
- 6. LRSCs are currently properly configured with all the command, control and support elements for rapid deployment of all or part of the unit.
 - a. Agree
 - b. Disagree
- 7. Should a slice of a LRSC deploy, the unit has the organic structure to continue training the stay-behind elements of the company that did not deploy.
 - a. Agree
 - b. Disagree
- 8. LRSDs are currently properly configured with all the command, control and support elements for rapid deployment of all or part of the unit.
 - a. Agree
 - b. Disagree
- 9. Should a slice of a LRSD deploy, the unit has the organic structure to continue training the stay-behind elements of the detachment that did not deploy.
 - a. Agree
 - b. Disagree
- 10. Under the current LRS organizations, an ARNG LRS team can easily be augmented into an AC LRSC or LRSD to form a composite LRS organization capable of worldwide deployment.
 - a. Agree
 - b. Disagree
- 11. Under the current LRS organizations, an ARNG LRS communications section can easily be augmented into an AC LRSC or LRSD to form a composite LRS organization capable of worldwide deployment.
 - a. Agree
 - b. Disagree

12. Under the current LRS organizations, an ARNG LRS command and control element can easily be augmented into an AC LRSC or LRSD to form a composite LRS organization capable of worldwide deployment.
- a. Agree
 - b. Disagree
13. A LRSC with 18 six-man teams is the correct organization for a corps intelligence collection asset.
- a. Agree
 - b. Disagree
14. A smaller LRS organization can accomplish the corps intelligence collection missions.
- a. Agree
 - b. Disagree
15. In your opinion, what is the correct number of LRS teams for a corps intelligence collection organization? (circle one)
- a. 18 b. 12 c. 10 d. 8 e. 6
16. A LRSD with 6 six-man teams is the correct organization for a division intelligence collection asset.
- a. Agree
 - b. Disagree
17. A smaller LRS organization can accomplish the division intelligence collection missions.
- a. Agree
 - b. Disagree
18. In your opinion, what is the correct number of LRS teams for a division intelligence collection organization? (circle one)
- a. 8 b. 6 c. 4
19. A six-man LRS team is the right size to cover one NAI/TAI with either one or two surveillance sites.
- a. Agree
 - b. Disagree
20. A six-man LRS team is capable of effectively covering two NAIs/TAIs within 5 miles of each other.
- a. Agree
 - b. Disagree

21. A nine-man LRS squad could be capable of effectively covering two NAIs/TAIs within 5 miles of each other.
- a. Agree
 - b. Disagree
22. In your opinion, what is the most effective size (number of men) of a LRS small unit? (circle one)
- a. 12
 - b. 9
 - c. 6
 - d. 4

FACT: The literature review revealed that no individual above the rank of captain commands LRS units. Consequently, there is a lack of continuity and synchronization among LRS units in the active and reserve component.

Please circle A, B, or C prior to answering the questions.

- A. I concur with this FACT and will continue the questions in this section.
- B. I do not concur with this FACT, but will continue the questions in this section.
- C. I do not concur with this FACT, and do not wish to continue the questions in this section.

Please circle "a" or "b".

23. The current organization and command and control structure for LRS units is adequate and can continue to successfully plan, coordinate, resource and execute intelligence collection missions.
- a. Agree
 - b. Disagree
24. There is no requirement for a centralized command and control structure above the company and detachment level to oversee LRS unit METL in subordinate units.
- a. Agree
 - b. Disagree
25. There is no requirement for an individual to be designated "Chief of Reconnaissance" for a corps, that role is adequately filled by an existing slot.
- a. Agree
 - b. Disagree
26. In your opinion, who is the "Chief of Reconnaissance" for a corps? (circle one)
- a. The Commander
 - b. The DCG
 - c. G2
 - d. Deputy G-2
 - e. Other _____
27. In your opinion, is a designated corps "Chief of Reconnaissance" capable of performing those duties for the subordinate divisions also?
- a. Yes
 - b. No

SECTION III – FUTURE ROLES AND MISSIONS

FACT: IAW Army Vision 2010, achieving Full Spectrum Dominance will be achieved through a deliberate set of patterns of operation. Three of those patterns are:

1. Protect the Force
2. Shape the Battlespace
3. Gain Information Dominance

FACT: The literature review suggests that while the Army needs to be prepared to win a conventional conflict, the more likely employment of US ground forces will be in a MOOTW/SASO scenario. Potential advisories will not attempt to engage us in a conventional, linear fight. The future threat will be in an asymmetrical nature. These future threat trends will significantly impact on our current technological advantages.

1. Within 25 years one-third of the global population will be in cities. In spite of our technological advantages of airborne surveillance platforms and precision engagement capabilities, advisory employment of asymmetrical approaches in an urban environment will attempt to gain an advantage due to the US reluctance to inflict collateral damage to non-combatants and urban infrastructure.
2. The US has limited SIGINT or IMINT capability to distinguish specific targets in a “cluttered” urban environment.

Please circle A, B, or C prior to answering the questions.

- A. I concur with these FACTS and will continue the questions in this section.
- B. I do not concur with these FACTS, but will continue the questions in this section.
- C. I do not concur with these FACTS, and do not wish to continue the questions in this section.

Please circle “a” or “b”.

28. The limitations and vulnerabilities of a LRS team preclude their employment on an asymmetrical, distributed battlefield.
 - a. Agree
 - b. Disagree
29. The SIGINT and IMINT assets available to the corps and division have made LRS / HUMINT obsolete in the asymmetrical, distributed battlefield.
 - a. Agree
 - b. Disagree
30. LRS units can play a significant role in future intelligence collection missions.
 - a. Agree
 - b. Disagree
31. LRS units will be ineffective in future MOOTW/SASO operations.
 - a. Agree
 - b. Disagree

32. LRS capabilities portends a greater reliance as an intelligence collection asset in an urban environment.
- a. Agree
 - b. Disagree
33. LRS units can provide significant contributions in supporting IO operations.
- a. Agree
 - b. Disagree
34. LRS units are capable of conducting other missions than reconnaissance, surveillance, target acquisition and battle damage assessment.
- a. Agree
 - b. Disagree
35. There is a need for LRS units to conduct other missions than reconnaissance, surveillance, target acquisition and battle damage assessment.
- a. Agree
 - b. Disagree
36. LRS capabilities can be used in a force protection role.
- a. Agree
 - b. Disagree
37. LRS capabilities can be expanded to include training to be a dedicated CSAR element organic to the supported corps or division.
- a. Agree
 - b. Disagree
38. LRS capabilities can be used in Pathfinder operations.
- a. Agree
 - b. Disagree
39. LRS precision engagement capabilities should include sniper operations.
- a. Agree
 - b. Disagree
40. LRS capabilities should include a mounted (wheeled) reconnaissance capability.
- a. Agree
 - b. Disagree
41. Please list any other capability you feel LRS units should be used.

SECTION IV – ISSUES AND PERCEPTIONS

OBSERVATIONS: There are some issues and perceptions of the LRS community as a whole that I would like to address in this questionnaire that I feel have significant value for future employment of LRS assets. Some of these issues and perceptions have already been discussed in previous sections of this questionnaire. Others have not. The discussion does not necessarily lend to "FACTS" identified during research for this thesis. Rather, they are observations and discussions that I have experienced or been involved in during my service with the LRS community. These are not listed by priority.

1. The name "Long-Range Surveillance" is no longer relevant in the distributed battlefield. While the requirement for deep reconnaissance is still valid, the most likely employment of these intelligence collectors will be within a much closer range than previously required. This would make the phrase "long-range" a misnomer. Additionally, "surveillance" is linked more to a SIGINT or IMINT platform than to HUMINT. While passive observation of a NAIs, TAIs or specific areas are some of the primary jobs for these intelligence collectors, the term "reconnaissance" more aptly describes a human collector as opposed to a platform.
2. The USAIC & S at Ft. Huachuca and the Military Intelligence community as a whole do not identify HUMINT and specifically LRS as a valuable asset to protect and have not made an honest attempt to prevent LRS inactivation from the active force.
3. The fact that LRS units are organic to a combat support unit precludes them from having priority for personnel, new equipment, repair parts and maintenance. The exception to this observation is only when there is a specified focus and priority given LRS units by their division or corps commander.
4. Light and airborne infantry units put a greater reliance on their LRS units than mechanized or armor units.
5. The LRS units are required too much time in isolation preparing for a mission.

Please circle "a" or "b".

42. There is nothing wrong with the name "LRS". Leave it alone. There are bigger fish is fry.
 - a. Agree
 - b. Disagree
43. The name "LRS" does not accurately describe the future role of corps and division HUMINT collectors.
 - a. Agree
 - b. Disagree
44. LRS should fall under a different rubric that more aptly describes their future roles and missions, i.e. Corps Reconnaissance Company, Division Reconnaissance Detachment.
 - a. Agree
 - b. Disagree
45. List your recommendations.

46. The USAIC & S and Ft. Huachuca put very little emphasis on LRS.
 - a. Agree
 - b. Disagree

47. The USAIC &S and Ft. Huachuca protect SIGINT and IMINT at the expense of LRS.
- a. Agree
 - b. Disagree
48. The USAIS and Ft. Benning do not put enough emphasis on LRS.
- a. Agree
 - b. Disagree
49. All LRS units should be removed from MI TO&E in order to prevent future inactivations of LRS units.
- a. Agree
 - b. Disagree
50. The dual proponency between Ft. Benning and Ft. Huachuca is not working and Ft. Benning should take sole proponency of LRS.
- a. Agree
 - b. Disagree
51. The dual proponency between Ft. Benning and Ft. Huachuca is not working and Ft. Huachuca should take sole proponency of LRS.
- a. Agree
 - b. Disagree
52. LRS units that I've had contact with have been adequately manned, equipped, resourced and supported.
- a. Agree
 - b. Disagree
53. General Officer emphasis directly impacts the level of support a LRS unit receives.
- a. Agree
 - b. Disagree
54. Light and airborne divisions/corps have a more positive perception of LRS units than mechanized and armor units.
- a. Agree
 - b. Disagree
55. Mechanized and armor divisions/corps do not know how to properly employ LRS assets.
- a. Agree
 - b. Disagree
56. The amount of time LRS teams require in isolation preparing for a mission precludes them from missions that demand immediate information from a HUMINT source.
- a. Agree
 - b. Disagree

57. LRS teams are capable of safely preparing for missions in a compressed timeline from what they currently operate.

- a. Agree
- b. Disagree

58. In your opinion, what are today's key LRS issues that will influence Army Vision 2010?

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